51732

SPENCER FANE BRITT & BROWNE

1400 COMMERCE BANK BUILDING
1000 WALNUT STREET
KANSAS CITY, MISSOURI 64106-2140
PHONE (816) 474-8100
TELEX 43-4345
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KANSAS OFFICE
SUITE 500, 40 CORPORATE WOODS
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WASHINGTON, D. C. OFFICE
1133 CONNECTICUT AVENUE, N.W.
SUITE 1000
WASHINGTON, D. C. 20036
PHONE (202) 775-2376
FAX (202) 833-8491

WRITER'S DIRECT DIAL NUMBER IS:

PLEASE REPLY TO THE MISSOURI OFFICE

FILE NO.

February 28, 1990

Hand Delivery

Ms. Ruth Mancos
Emergency Support Section
U.S. Environmental Protection Agency, 5HS-11
230 South Dearborn Street
Chicago, Illinois 60604

Re: Request for Information Pursuant to Section 104(e) of CERCLA and Section 3007 of RCRA, for the Conservation Chemical Company of Illinois Site in Gary, Indiana

Dear Ms. Mancos:

We are attorneys for American Telephone and Telegraph Company ("AT&T"), successor in interest to Western Electric Company, Incorporated ("Western Electric"). (See paragraph III. 8 below.)

The Environmental Protection Agency ("EPA") sent two identical letters dated January 30, 1990 addressed to Western Electric requesting information regarding Western Electric's dealings with the Conservation Chemical Company of Illinois site in Gary, Indiana. One letter was sent to a Western Electric address in Richmond, Virginia ("the Richmond facility"). The other letter was sent to a Western Electric address in Winston-Salem, North Carolina ("the Winston-Salem facility"). This letter responds to both those letters. The affidavit of Judy McCarthy is attached hereto as Attachment I.

I. Limitations on Scope of Inquiry and Response. On February 15, 1990 the undersigned discussed with Ms. Mary Fulghum, EPA legal counsel, the scope of the requests for information. Ms. Fulghum agreed to the following interpretations of and limitations on the requests:

A. The information requested by the January 30, 1990 letters is limited to Western Electric's dealings with the Gary, Indiana facililty ("the CCCI Site" or "the site") of Conservation Chemical Company of Illinois ("CCCI") except as noted in subparagraph B(ii) below.

B. Although the information requests principally seek information about possible transportation of PCB oils to the CCCI Site, the requests cover all "hazardous substances." Ms. Fulghum, while acknowledging the primary emphasis of EPA's current inquiry to be PCBs, confirmed EPA's intention to request information at this time regarding any "hazardous substances" which might have been transported to the CCCI Site. Ms. Fulghum agreed that a company-wide search for all information regarding use, purchase, storage, treatment, disposal, transportation or other handling of any hazardous substances or materials during the period 1970 to 1985 is beyond the intended scope of the information requests. Ms. Fulghum and the undersigned, therefore, agreed to the following interpretation and modification of the information requests:

(i) Facility Addressed. Each facility addressed is required to respond only with respect to its own operations, and is not responsible for responding on behalf of any other Western Electric or AT&T facility. (Because the Winston-Salem facility merely served as the cenral billing facility for the Greensboro Shops, the Winston-Salem facility responds only with respect to the Greensboro Shops. See paragraph 7 below.)

(ii) PCBs. Each facility will provide information regarding its use, purchase, storage, treatment, disposal, transportation or other handling of PCBs, without regard to whether the PCBs were transported to the CCCI site.

(iii) Other Hazardous Substances or Materials. With respect to all hazardous substances or materials other than PCBs, each facility addressed may limit its response to its use, purchase, storage, treatment, disposal, transportation or handling of hazardous substances or materials which may have been transported to the CCCI Site.

C. Time for Response. Ms. Fulghum and the undersigned agreed that, with respect to the PCB information referred to in subparagraph B(ii) above, each facility addressed will respond within 25 days of its receipt of EPA's letter. With respect to information referenced in subparagraph B(iii) above, however, each facility shall have a 15-day extension of time to respond.

D. Financial Responsibility. Ms. Fulghum agreed that, until further notice from EPA, each facility addressed may respond to the requests for information regarding financial responsibility (requests number 8 through 12) by providing a copy of AT&T's most recent annual report to shareholders.

II. Objections to Instructions. AT&T objects to the instructions which accompany the information requests to the extent that they purport to require AT&T to provide documents or information in the possession, custody or control of former employees, agents, servants, contractors or employees.

AT&T went through the largest corporate reorganization in American history commencing in 1982. The reorganization included the divestiture of 22 former wholly-owned subsidiaries, and the reorganization of Western Electric Company, Incorporated's operations and its name change to AT&T Technologies, Inc. AT&T searched records it considered likely to contain information relating to the EPA's request, and similarly has interviewed those employees it considered likely to provide such information, but cannot categorically state that it has not indavertently overlooked some piece of information that the EPA might consider responsive to its request or that might cause AT&T to supplement, modify or correct the answers to this request. Accordingly, AT&T reserves the right to supplement, modify or correct the responses provided below. Documents that are subject to lawyer/client communications privilege, attorney work product immunity or otherwise privileged or protected have not been produced.

III. Response to Requests. The Richmond facility and the Winston-Salem facility (Greensboro Shops) each respond to the information request received by it as follows:

1. Persons Consulted. The persons consulted in preparation of the answers to the information requests were:

For the Richmond Facility:

Robert Owens
Senior Engineer
AT&T Richmond Works
4500 South Laburnum Avenue
Richmond, Virginia 23231

Doug Snapp
Electrical Engineer
AT&T Richmond Works
4500 South Laburnum Avenue
Richmond, Virginia 23231

Mike Thompson
Industrial Hygienist
AT&T Richmond Works
4500 South Laburnum Avenue
Richmond, Virginia 23231

For the Winston-Salem Facility (Greensboro Shops):

Robert Owens
Senior Engineer
AT&T Richmond Works
4500 South Laburnum Avenue
Richmond, Virginia 23231

Henry Campbell
Senior Plant Engineer
AT&T North Carolina Works
3300 Lexington Road, S.E.
Winston-Salem, North Carolina 27104

Frank Worden
Environmental Health Consultant
AT&T North Carolina Works
3300 Lexington Road, S.E.
Winston-Salem, North Carolina 27104

John Hart
Electrical Engineer for
Western Electric (retired)
Last known business address:
Greensboro Shops,
Greensboro, North Carolina

2. Documents. Documents which form the basis for each facility's response are as follows:

For the Richmond Facility (Copies attached as Exhibit A):

1977 log sheets of waste removal rendered to the Richmond facility by Rollins Environmental Services, Inc. pursuant to purchase order RVX-447208 (3 pages).

For the Winston-Salem Facility (Greensboro Shops): (Copy attached as Exhibit B)

Affidavit of Robert J. Flanagan dated November 9, 1984 in the litigation entitled USA v. Conservation Chemical Comany, et al. Case No. 82-0983-CV-W-5 in the United States District Court for the Western District of Missouri.

3. Other Persons. We know of no AT&T employees, contractors or agents who may be able to provide a more detailed or complete response than contained herein. Mr. Norman Hjersted, the owner and principal officer of CCCI, may be able to provide you additional information. We have not been in contact with Mr. Hjersted and do not know his current address.

4. EPA Identification Numbers. The EPA identification numbers for each facility addressed are as follows:

Richmond Facility, VAD066000993
Winston-Salem Facility, NCD003213907
Greensboro Shops, None (No EPA identification number was assigned because the shops closed before RCRA regulations requiring such identification numbers were enacted.)

5. Acts or omissions of other persons. AT&T objects to the broad, vague scope of this request, which does not identify the release or threat of release to which it refers, the facility or site to which it refers, the hazardous substance to which it refers, or even the company to which it refers. With respect to PCBs, AT&T has no indication that either facility addressed sent PCBs to the CCCI Site. AT&T makes no response to this inquiry to the extent it may be construed to require AT&T to identify acts or omissions of third parties. AT&T is aware that a large body of evidence has been accumulated by EPA with respect to CCCI's operation of the site. AT&T refers EPA to its own files for this information.

6. Persons Having Knowledge. AT&T objects to the overbroad scope of this request. Persons identified in paragraph III.1 above have knowledge or information about the generation, transportation, treatment, disposal or handling of PCBs. It is not possible, however, for AT&T to identify "all persons" having such knowledge.

7. PCB Handling:. Except as set forth below and in the attached documents, neither facility used, purchased, stored, treated, disposed, transported or otherwise handled PCBs during the period 1970 to 1985:

Richmond facility. On August 8, 1977 the Richmond facility disposed of one 5-gallon container of suspected PCBs from an electrical transformer. This container was transported and disposed by Rollins Environmental Services, Inc. of Bridgeport, New Jersey. Copies of the log sheets showing removal of this container are attached as Exhibit A. The relevant transaction is logged on page 2 at line 12.

Winston-Salem facility (Greensboro Shops). The Winston-Salem facility never had any dealings with CCCI or its sister company, Conservation Chemical Company, except to serve as a billing center on behalf of the Greensboro Shops. (See Affidavit of Robert Flanagan, copy attached as Exhibit B.) Accordingly, AT&T's response to EPA's letter addressed to the Winston-Salem facility is limited to the operations of the Greensboro Shops, Greensboro, North Carolina.

The Greensboro Shops closed in 1976. We have found no documents indicating the Greensboro Shops used, purchased, stored, treated, disposed, transported or otherwise handled PCBs during the period 1970 to 1985. We talked to former Greensboro Shops employees Robert Owens, now at the Richmond facility, and John Hart, retired electrical engineer. They had no information to indicate that the Greensboro Shops used, purchased, stored, treated, disposed, transported or otherwise handled PCBs during the period 1970 to 1985.

8-12. Financial Responsibility. Western Electric Company, Incorporated, a wholly owned subsidiary of AT&T, changed its name on January 3, 1984 to AT&T Technologies, Inc. Effective December 31, 1989, AT&T Technologies, Inc. (formerly Western Electric) was merged into its parent, AT&T. As part of that merger, AT&T assumed Western Electric's liability, if any, for cleanup of hazardous substances which may have been disposed of at the CCCI Site.

Per agreement with Ms. Mary Fulghum described in paragraph I.D above, AT&T's most recent annual report to shareholders is attached hereto as Exhibit C in response to requests 8 through 12.

Very truly yours,

CHH:nrl

cc: Ms. Mary Fulghum (w/enclosures)

AFFIDAVIT

Judy McCarthy, being first duly sworn, on information and belief, states as follows:

My name is Judy McCarthy. I am an environmental engineer for American Telephone and Telegraph Company ("AT&T"). This affidavit refers to, and incorporates by reference, the February 28, 1990 letter from Carl H. Helmstetter to Ruth Mancos in response to EPA's request for information regarding the Conservation Chemical Company of Illinois site in Gary, Indiana.

I have been told that record searches were conducted at AT&T's Richmond Facility and AT&T's Winston-Salem Facility for documents relating to use, purchase, storage, treatment, disposal, transportation or other handling of PCBs during the period 1970 to 1985 by the Richmond Facility and the Greensboro Shops. I have been told that present employees who were considered likely to be able to provide the requested information were contacted.

Judy McCarthy

Judy McCarthy

STATE OF ILLINOIS)
) ss.
COUNTY OF Cook)

Subscribed and sworn to before me, a Notary Public in and for said County and State this ____ day of ________, 1990.

Notary Public

My commission Expires:

OFFICIAL SEAL
Patricia M. Earnest
Notary Public, State of Illinois
My Commission Expires June 10, 1990

Attachment I

GN-551 (12-55) L-2682 Electroless
L-2123 Solvent
L-4165 Additive

Rollins 1977 $~~10,000~~ C.c.l. $135,000 RVX-447208 PAGE 1

Picked up/Inv. Mailed	Type	Gals.	B/L#	Inv. #	$	Cum. $	$ By Monthly
1/7/77	2682	✓ 4000	27928	19054	1135.00	1135.00	
1/7/77	2682	✓ 4000	27929	19055	1138.75	2243.75	
Dtd. 1/21/77	2682	Cr. Transp.	OVERCHARGED	19054A	(90.)	2153.75	
1/7/77	2123	✓ 3500	27920	19053	1900.00	4053.75	
Dtd. 2/4/77	2123	Cr. Transp.	OVERCHARGED	19053A	(45.)	4008.75	
1/17/77	2123	✓ 3500	28047	19131	1232.50	5241.25	
1/12/77	2682	✓ 4000	28103	19177	1219.58	7060.83	
1/22/77	2682	✓ 4000	28104	19178	1228.33	8289.16	
1/25/77	2682	✓ 4000	28134	19198	1090.00	9379.16	
1/26/77	2682	✓ 4000	28149	19213	1055.00	10,434.16	L-2123 31,500 G
1/27/77	2682	✓ 4000	28172	19229	1059.38	11,493.54	L-2682 7,000 G
1/28/77	2682	✓ 3500	28182	19256	979.38	12,472.92	$12,472.92
2/3/77	2123	✓ 3500	28276	19319	1810.00	14,282.92	
2/4/77	2682	✓ 4000	28292	19350	1146.88	15,429.80	
2/7/77	2682	✓ 4000	28315	19351	1076.00	16,505.80	
2/7/77	2123	✓ 3500	28314	19349	1832.50	18,338.30	
2/9/77	2682	✓ 4000	28337	19369	1055.00	19,393.30	
2/22/77	2682	✓ 4000	28417	19546	1055.00	20,448.30	L-2682 19,800 G
2/24/77	2682	✓ 3800	28553	19563	1036.13	21,484.43	L-2123 10,500 G
2/25/77	2123	✓ 3500	28574	19591	1817.50	23,301.93	$10,829.01
3/3/77	2682	✓ 3800	28690	19658	1036.13	24,338.06	
3/4/77	2682	✓ 3675	28710	19680	1029.25	25,367.31	
3/9/77	2123	✓ 3500	28774	19723	1955.00	27322.31	
3/11/77	2682	✓ 3800	28856	19781	1098.00	28420.31	
3/15/77	2123	✓ 3500	28910	19810	1802.50	30,222.81	L-2123 = 10,500 G
3/29/77	2682	✓ 4000	29196	19995	1068.13	31,290.94	L-2682 = 15,275 G
3/30/77	2123	✓ 3500	29220	20008	1802.50	33,093.44	$9,979.17
4/10/77	2682	4000	29536				L-2123 = 3,638 G
4/10/77	2682	4000	29537	20230	2127.50	35,220.94	L-2682 = 8,000 G
4/22/77	2123	3638	29666	20335	1871.32	37,092.26	$3,998.82
5/11/77	2682	4053	29990	20579	1076.71	38,168.97	
5/12/77	2123	3500	30017	20596	1802.50	39,971.47	
5/17/77	2682	4500	30105	20658	1161.25	41,132.72	
5/18/77	2682	4500	30125	20678	1139.38	42,272.10	
5/19/77	2682	4500	30141	20698	1135.00	43,407.10	L-2123 = 6,820 G
5/21/77	2123	3320	30206	20735	1739.80	45,146.90	L-2682 = 22,053 G
5/23/77	2682	4500	30216	20476	1148.13	46,295.03	$9,202.77

Exhibit A

01-551 (12-66)

L-2682 Electroless
L-2123 Solvent
L-4165 Additive

L-4531 PCB
L-4635 Diluted Soldering Plating Solution

Rollins 1977 $135,000 RYX-447208

#	Pickup/Inv. Mailed	Type	Gals.	BL#	Inv. #	$	Cum. $	$ Pd. Monthly
1	6/2/77	2123	3500	30373	20871	1810.00	48165.03	[illegible]
2	6/2/77	2682	4200	30374	20892	1095.75	49,200.78	675 [illegible]
3	6/24/77	2123	3900	30755	21181	1732.00	50,932.78	
4	6/29/77	2682	4000	30825	21229	2118.75	53,057.53	L-2123=6800 gal
5	6/29/77	2682	4000	30826				L-2682=12,200 gal
6	7/7/77	2682	4500	30918	21317	1143.73	54195.28	[illegible]
7	7/13/77	2682	4000	31012	21412	1059.38	55,254.63	L-2123-0
8	7/21/77	2682	4500	31121	21477	1156.88	56411.51	L-2682-13000
9	8/4/77	2682	4500	31336	21622	1135.00	57,546.51	[illegible]
10	8/11/77	2682	4500	31473	21739	2278.75	59,825.26	$5,781.13
11	8/11/77	2682	4500	31474				
12	8/8/77 (PCB)	4531	(1) 5 gal Container	0270770	21670	10.00	59,835.26	L-2123-700
13	8/10/77	2123	700	31447	21697	718.00	60,553.26	L-2682-18000
14	8/15/77	2682	4500	31520	21748	1139.38	61692.64	L-4531- 5
15	9/1/77	2123	3500	31821	21956	1797.13	63489.77	[illegible]
16	9/6/77	2682	4500	31878	22017	1149.75	64,639.52	$7072.76
17	9/13/77	2123	3500	31942	22120	1840.00	66,479.52	L-2123-7000
18	9/13/77	2682	4500	32022	22119	1143.75	67,617.27	L-2682-13500
19	9/23/77	2682	4500	32145	22257	1148.13	68,765.40	
20	10/1/77	4635	4500	32299	22388	2517.53	71,282.93	[illegible]
21	10/1/77	4635	4500	32300	22387	2449.69	73,732.62	
22	10/4/77	4635	4500	32351	22420	2320.15	76,052.77	$14,723.66
23	10/5/77	4635	4500	32373	22427	2265.82	78,318.59	L-4635-270
24	10/5/77	2682	4500	32374	22426	1150.00	79,468.59	L-2682-13,50
25	10/6/77	4635	4500	32396	22452	2277.74	81,746.33	
26	10/6/77	2682	4500	32397	22454	1143.75	82,890.08	
27	10/9/77	4635	4500	32425	22476	2442.10	85,332.18	
28	10/31/77	2682	4500	32773	22735	1156.88	86,498.06	
29	11/1/77	2682	4500	32786	22760	1143.75	87,641.81	
30	11/3/77	2682	4500	32824	22783	1143.75	88,785.56	
31	11/4/77	2123	3500	32845	22790	1792.75	90,578.31	
32	11/8/77	2123	3500	32895	22828	1784.00	92,362.31	
33	11/9/77	2682	4500	32914	22841	1143.75	93,506.06	
34	11/10/77	2682	4500	32937	22872	1139.38	94,645.44	
35	11/21/77	2123	3500	33103	22994	1784.38	96,429.82	
36	11/23/77	2123	3500	33158	23042	1788.38	98,218.20	
37	11/29/77	2682	4500	33218	23086	1148.13	99,366.33	

GN-551 (12-55)

L-2682 Electrolytes
L-2123 Solvent
L-4165 Additive

L-4531 PCB
L-4635 Diluted Soldering Plating Solution

Rollins 1977 $/.25 gal. RYX-447208

PAGE

	Picked up \ Inv. Mailed	Type	Gals.	BL #	Inv. #	$	Cum. $	$ By Monthly/4
1	11/30/77	2682	4500	33232	23166	1143.75	100510.68	814,0R02 [illegible] K-1254 (17000) [illegible]
2	12/19/77	2682	4500	33416	23132	1395.00	101905.58	
3	12/22/77	2123	3500	33429	045800	2798.22	104703.30	
4	12/27/77	2682	4500	33444	23219	1161.25	105864.55	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
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23								
24								
25								
26								
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32								
33								
34								
35								
36								
37								

Total yr. 1977
$ 105864.55

IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

UNITED STATES OF AMERICA, Plaintiff, v. CONSERVATION CHEMICAL COMPANY, et al., Defendants/ Third-Party Plaintiffs, v. AEROQUIP CORPORATION, et al., Third-Party Defendants.	)	Civil No. 82-0983-CV-W-5

AFFIDAVIT OF ROBERT J. FLANAGAN

STATE OF NORTH CAROLINA)
)ss.
COUNTY OF FORSYTH)

I, Robert J. Flanagan, being first duly sworn under oath, depose as follows:

1. I am Accounting Manager for the AT&T Technologies, Inc. manufacturing facility at Winston-Salem, North Carolina.

2. My job responsibility includes overall supervisory responsibility for accounting, payroll and payment of supplier invoices.

3. The Winston-Salem facility and the Greensboro, North Carolina shops were two separate manufacturing facilities which were part of the "North Carolina Works" until the Greensboro shops closed in 1976. Winston-Salem always served as the central billing location for the North Carolina Works as well as other facilities.

Exhibit B

4. Under AT&T-TI's central billing procedure, purchases by Greensboro of goods and services were accounted and paid for by Winston-Salem. Invoices for services to be performed at Greensboro often showed Winston-Salem as the billing address.

5. The documents attached hereto as Exhibit A (documents W003537-8, W003922-3, and W003461-2) are invoices and related documents for waste disposal services which were performed for Greensboro, as indicated by the bills of lading, but were invoiced to Winston-Salem as the "billing address" because of Winston-Salem's central billing function.

6. I have supervised a review of the applicable records at Winston-Salem and have not found any documents indicating that Winston-Salem ever contracted with Conservation Chemical Company or Conservation Chemical Company of Illinois for waste disposal services or any other services, or ever bought anything from either of those companies.

Robert J. Flanagan
Robert J. Flanagan

Subscribed and sworn to before me, a Notary Public in and for said county and state, this 9th day of November, 1984.

DoAnne M. Yarboro
Notary Public

My commission expires:

February 10, 1985

OFFICIAL SEAL
Notary Public
County of ...
JoAnne M. Yarboro
My comm. expires Feb. 10, 1985

INVOICE

K 2239

CONSERVATION CHEMICAL COMPANY

[redacted]

PLEASE REMIT PAYMENT TO:
CONSERVATION CHEMICAL CO.
215 WEST PERSHING RD. SUITE 703
KANSAS CITY, MO. 64108

RECEIVED
PHONE 219-949-8229
1974 DEC 9 AM 10 50
FINANCIAL DEPT

DATE NOVEMBER 29 1974

SOLD TO:
WESTERN ELECTRIC
VOUCHER DEPT.
3300 LEXINGTON AVE.
WINSTON SALEM, N.C. 27102

SHIP TO:
WESTERN ELECTRIC
GREENSBORO, N.C.

ORDER NO.	DATE SHIPPED	SHIPPED VIA	TERMS	SALESMAN	OUR ORDER NO.
	11-27-74	OUR TRUCK	NET 30		

QTY. S.O.	DESCRIPTION	QTY. SHIP'D	UNIT PRICE	AMOUNT
	DISPOSAL OF AMMONIUM PERSULFATE			
	B/L # 24026 WEIGHT 42600 LBS. (426.0 CWT)		@.82	$ 349.32
	FREIGHT CHARGES 426.0 CWT		@1.44	$ 613.44
				$ 962.76

VERIFIED
DEC 17 '74
33

302/1146

W003537

SUP. CODE	PUR. ORDER
P1129	166262
PUR. CODE	ACCTG CLASS
D9	LSA
MATL. NO.	DEV. CODE
APPLY ON	COMM. CODE
	20-999
TERMS	N.C. TAX YES NO
Net C	F
PAY DATE	
12-20	
INV. DATE	DISC.
11-27	
INV. NO.	NET
2239	962.76
	w 6

REASON FOR CONDITIONAL	CLEARED
E	
INV. CLK.	SUPV.	CREDIT
gm		ED

"Seller represents that with respect to the production of the articles covered by this invoice, it has fully complied with the provisions of the Fair Labor Standards Act of 1938, as amended."

TRAIGHT BILL OF LADING—SHORT FORM—Original—Not Negotiable

BILL OF LADING NO. 24026

EIVED subject to the classifications and tariffs in effect on the date of issue of this Original Bill of Lading.

CONSERVATION CHEMICAL COMPANY

SHIPPER'S NO.

[illegible]

CARRIER'S NO.

T: GREENSBORO, N.C. FROM WESTERN ELECTRIC

11-27 1974

NAME OF CARRIER CCC

ONSIGNED TO (Mail or street address of consignee—For purposes of notification only.)

CONSERVATION CHEMICAL COMPANY 100 BREMAN AVENUE

ESTINATION STATE COUNTY

ST. LOUIS, MO.

OUTE (To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

P.O. NO.

ELIVERING CARRIER CAR OR VEHICLE INITIALS & NO.

CONSERVATION CHEMICAL COMPANY 35083 - T-11

NO. PACKAGES	DESCRIPTION	WEIGHT SUB. TO COR.	CLASS OR RATE	CHECK COLUMN
	4,000 GALLONS AMMONIUM PERSULFATE			
	42,600 NET WEIGHT			

(Signature of consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received $ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per (The signature here acknowledges only the amount prepaid.)

Charges advanced $

NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding per

R. W. Pugson 11.27.74

CCC Shipper, Per J. Miller WESTERN ELECTRIC Agent, Per

DEPART TERMINAL		GROSS WEIGHT 73,260	TARE WEIGHT 30,660	NET WEIGHT 42,600	HOSE	PUMP	WEIGH	DEMURRAGE CHG.
ARRIVE TERMINAL		MILES OUT						
TOTAL TIME		MILES IN		DRIVER'S SIGNATURE Ed Barker				
ARRIVE PLANT		DELAY AT TERMINAL		REMARKS:				
START LOAD								
FINISH LOAD								
DEPART PLANT				WC03538				
TOTAL TIME IN PLANT	HRS. MIN.							

ORIGINAL

INVOICE

K- 2339

CONSERVATION CHEMICAL COMPANY

[redacted]

PLEASE REMIT PAYMENT TO:
CONSERVATION CHEMICAL CO.
215 WEST PERSHING RD. SUITE 703
KANSAS CITY, MO. 64108

PHONE 219-949-8229

DATE JANUARY 21 19 75

SOLD TO:
WESTERN ELECTRIC
VOUCHER DEPT.
3300 LEXINGTON AVE.
WINSTON SALEM, N.C. 27102

SHIP TO:
WESTERN ELECTRIC
GREENBORO, N.C.

CUSTOMER'S ORDER NO.	DATE SHIPPED	SHIPPED VIA	TERMS	SALESMAN	OUR ORDER NO.
321E	SEE BELOW	OUR TRUCK	NET 30		

ORD'D	QTY. B.O.	DESCRIPTION	QTY. SHP'D	UNIT PRICE	AMOUNT
	1-14-75	CHEMICAL DISPOSAL OF AMMONIUM PERSULFATE 4000 GALLONS			
		33,200 LBS (332. CWT)	332.0	@.82	$ 272.24
		FREIGHT CHARGES 33,200LBS (332.0 CWT)	332.0	@1.44	$ 478.08
		B/L # 26840			
					$ 750.32

DISB. AUDIT
FEB 19 '75
12

VERIFIED
FEB 19 '75
33

302/1146

W003922

"Seller represents that with respect to the production of the articles covered by this invoice, it has fully complied with the provisions of the Fair Labor Standards Act of 1938, as amended."

RAIGHT BILL OF LADING — SHORT FORM — Original — Not Negotiable

BILL OF LADING NO. 26840

...VED, subject to the classifications and tariffs in effect on the date of issue of this Original Bill of Lading.

CONSERVATION CHEMICAL COMPANY

SHIPPER'S NO.

CARRIER'S NO.

GREENSBORO, N.C. FROM WESTERN ELECTRIC

1-14 19 75

NAME OF CARRIER CCC

...NSIGNED TO (Mail or street address of consignee—For purposes of notification only.)

CONSERVATION CHEMICAL COMPANY

...TINATION STATE COUNTY

...TE (To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

P.O. NO.

...VERING CARRIER CAR OR VEHICLE INITIALS & NO.

CONSERVATION CHEMICAL COMPANY

NO. PACKAGES	DESCRIPTION	WEIGHT SUB TO COR	CLASS OR RATE	CHECK COLUMN
	4,000 GALLONS AMMONIUM PERSULFATE			
	33,200 NET WEIGHT			

CCC Shipper, Per J. MILLER

WESTERN ELECTRIC Agent, Per

DEPART TERMINAL		GROSS WEIGHT 62,100	TARE WEIGHT 28,900	NET WEIGHT 33,200	HOSE	PUMP	WEIGH	DEMURRAGE CHG.
ARRIVE TERMINAL		MILES OUT						
TOTAL TIME		MILES IN		DRIVER'S SIGNATURE Ed Barker				
ARRIVE PLANT		DELAY AT TERMINAL		REMARKS:				
START LOAD								
FINISH LOAD								
DEPART PLANT								
TOTAL TIME IN PLANT	HRS. MIN.							

W003923

ORIGINAL

K 2656

INVOICE

CONSERVATION CHEMICAL COMPANY

REMIT TO:
215 W. PERSHING ROAD, SUITE 703
KANSAS CITY, MO. 64108

ACCT'G DEPT
RD W-S NC

OPERATING PLANT:
8900 FRONT STREET
BOX 6304
KANSAS CITY, MO. 64120
816 483-4222

1975 AUG 1 AM 11 48

DATE JULY 29 19 75

SOLD TO:
WESTERN ELECTRIC
VOUCHER DEPT.
3300 LEXINGTON AVE.
WINSTON, SALEM, N.C. 27102

SHIP TO:

CUSTOMER'S ORDER NO.	DATE PICKED UP	SHIPPED VIA	ACCOUNT	TERMS	CUSTOMER NO.	B/L NO.
NC 5321E	7-21-75	OUR TRUCK	302/1146 399/59096	NET 30		22867

QTY. ORD'D.	QTY. B.O.	DESCRIPTION	QTY. SHP'D.	UNIT PRICE	AMOUNT
		CHEMICAL DISPOSAL OF 4600 GALLONS			
		AMMONIUM PERSULFATE			
		39,930 LBS (399.30 CWT) @ 88¢	399.30	@88¢	$351.38
		FREIGHT CHARGES 399.3 X 1.48			590.96
					$ 942.34

VERIFIED
AUG 19 75
33

DISB. AUDIT
AUG 19 75
17

W 003461

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1. CUSTOMER 3. ADMINISTRATIVE OFFICE 5. CUSTOMER FILE

[ST]RAIGHT BILL OF LADING — SHORT FORM — Original — Not Negotiable

BILL OF LADING NO. 22867

[RE]CEIVED, subject to the classifications and tariffs in effect on the date of issue of this Original Bill of Lading,

CONSERVATION CHEMICAL COMPANY

SHIPPER'S NO.

[illegible]

CARRIER'S NO.

[A]T: GREENSBORO, N. C. FROM WESTERN ELECTRIC

7-21 1975

NAME OF CARRIER CCC

[CO]NSIGNED TO (Mail or street address of consignee—For purposes of notification only.)

CONSERVATION CHEMICAL COMPANY

[DE]STINATION STATE COUNTY

8900 E. FRONT ST., KANSAS CITY, MO.

[RO]UTE (To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

P.O. NO.

[DE]LIVERING CARRIER CAR OR VEHICLE INITIALS & NO.

CONSERVATION CHEMICAL COMPANY Trk #11 - T-11

Subject to Section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

NO. PACKAGES	DESCRIPTION	WEIGHT SUB. TO COR.	CLASS OR RATE	CHECK COLUMN
	4,600 GALLONS ~~XXXXX~~ AMMONIUM PERSULFATE (CORROSIVE MATERIAL)			
	BACK HAUL!			
	EXEMPT FROM CERTIFICATION 177.819			
	CORROSIVE PLACARDS APPLIED			

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received $ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per (The signature here acknowledges only the amount prepaid.)

Charges advanced: $

[NO]TE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding per

CCC Shipper, Per J. MILLER WESTERN ELECTRIC Agent, Per R. Burgess

DEPART TERMINAL		GROSS WEIGHT 68580	TARE WEIGHT 28,650	NET WEIGHT 39,930	HOSE	PUMP	WEIGH	DEMURRAGE CHG.
ARRIVE TERMINAL		MILES OUT						
TOTAL TIME		MILES IN		DRIVER'S SIGNATURE Ed Barker				
ARRIVE PLANT	1:45	DELAY AT TERMINAL		REMARKS:				
START LOAD	2:00							
FINISH LOAD	3:00			W 003462				
DEPART PLANT	3:10							
TOTAL TIME IN PLANT	HRS. MIN.							

ORIGINAL

1988 Annual Report

AT&T

Our people are applying their talents, knowledge and skills to make AT&T the global leader in enabling customers to reap the benefits of information technology.

That is our mission.

Exhibit C

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PAGE #: **21**

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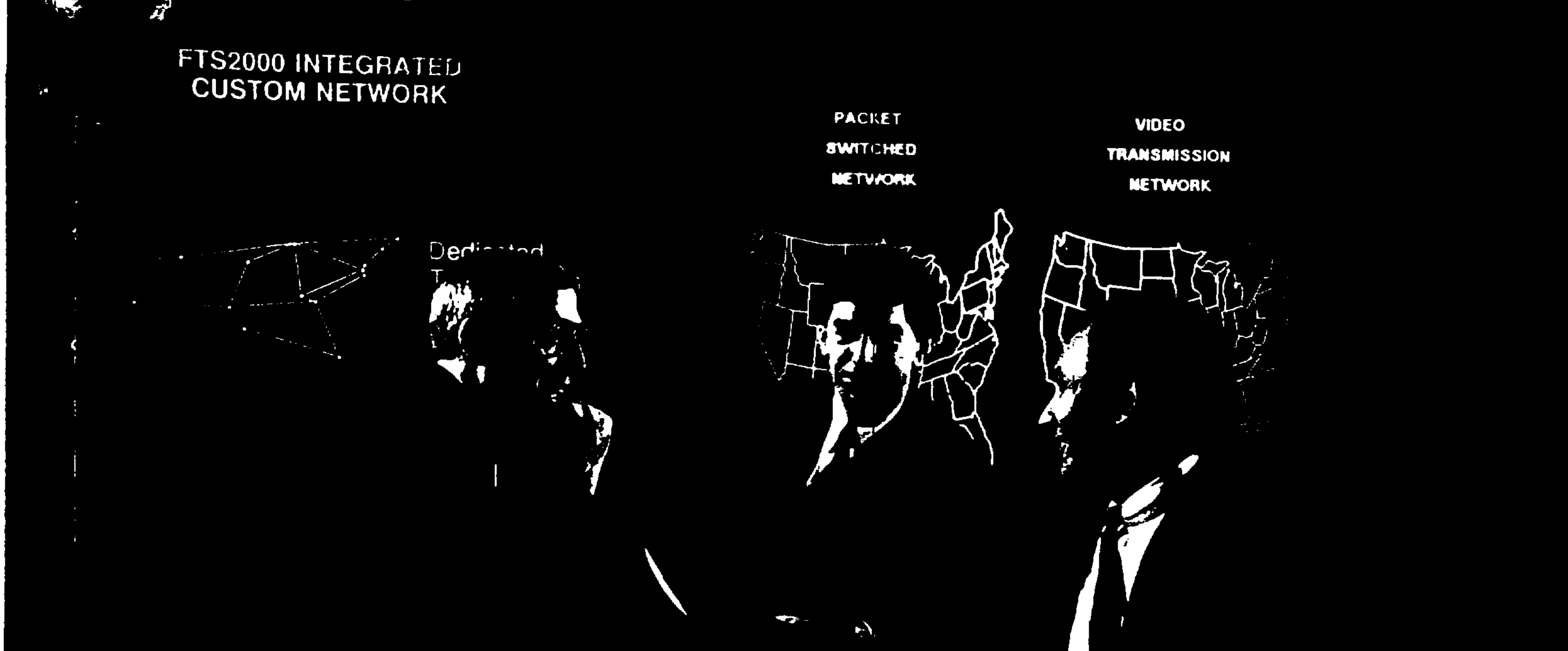
Financial Highlights



AT&T won the lion's share of the largest government telecommunications contract ever awarded. AT&T Federal Systems executives Robert Cann (left), Gary Forsee (center) and Doyle Girouard confer at a new operations center for the General Services Administration's federal telecommunications network.

Revenues, expenses and net income (loss) in millions	1988	1987
Operating Revenues	**$35,210**	$33,768
Costs and Expenses	**38,277**	30,252
Net Income (Loss)	**(1,669)**	2,044
Earnings (Loss) per Share	**(1.55)**	1.88
Dividends Paid per Share	**1.20**	1.20
Return on Average Common Equity	**(11.3%)**	14.4%
Stock Price (End of Year)	**$28.75**	$27.00

1988: A year of strong actions

■ Our revenues were the highest since divestiture on the strength of growth in product sales as well as growth in service revenues.

We shifted more of our people into sales or sales support jobs to further strengthen our position in the marketplace.

To meet a growing demand from our customers, we decided to speed up our conversion to an all-digital long distance network.

■ Higher costs and expenses reflect the decision to accelerate the modernizing of our network. It was necessary to write down the value of older technology equipment, adding $6.7 billion to our costs and expenses. This action reduced our earnings by $3.66 a share, resulting in a loss for the year. Without this charge our earnings would have increased to $2.11 per share.

■ Our actions to increase sales, modernize and continue reducing expenses enhance our earnings potential.

(For details, the Financial Section begins on page 18.)

Dear Shareowners,

We came into 1988 running, buoyed by the financial turnaround of the year before. But in April Jim Olson, who had been chairman less than two years, died unexpectedly. His death was a traumatic experience for the company, and our forward movement momentarily seemed to stall. Then, as the year progressed, a new sense of momentum caught hold and we were moving again.

At year's end, revenues—$35.2 billion compared with $33.8 billion the previous year—were the highest since divestiture. This was most encouraging because it reflected not only improved revenues from long distance services but also growth in the sales of our products to businesses, government agencies, consumers and telephone companies.

As a result of our taking a $6.7 billion charge to fourth quarter earnings, however, we reported a net loss in 1988 of $1.7 billion, or a negative $1.55 per share.

By modernizing our network faster, we can give customers the innovative, quality services they expect of us.

Without this charge, we would have shown earnings of $2.3 billion, or $2.11 per share, compared with $2 billion, or $1.88 per share, in 1987.

The charge to earnings, announced in December, followed our decision to accelerate the pace at which we are installing state-of-the-art digital equipment in our long distance network. As a result of this decision, we wrote off the older equipment in our network and recorded other expenses related to this modernization program.

Robert E. Allen

By modernizing our network faster, we can give customers the innovative, quality services they expect of us; ensure our leadership in the highly competitive marketplace for long distance service; and improve the company's earnings potential. Although we reported a loss for the year, the writedown and related charges did not adversely affect our ability to pay dividends or to continue investing in the business. Our performance has been strong and growing, and our intention is to continue this improvement.

Our aim is to pursue business growth in tandem with our effort to reduce expenses. For example, we redeployed nearly 2,000 people from administrative and staff jobs to front-line sales positions, while at the same time we were instituting cost reduction programs throughout the business; we also stopped most hiring.

The greater efficiencies of newer technologies will leave us with a surplus of employees in certain jobs over the next few years, and so further job reductions were announced in some parts of the business. But we are trying earnestly to minimize layoffs, seeking instead to retrain people and place them in jobs elsewhere in the company.

There is much to remember about 1988. Surely memorable were two major contract awards from the federal government: one, a multibillion dollar contract for an advanced telecommunications network to serve dozens of government agencies; the other—with a potential value approaching a billion dollars—one of the largest government computer contracts ever awarded. Also memorable were our successes in winning contracts from some of America's largest companies for complex, customized integrated networks.

There were the opening of the first fiber-optic trans-Atlantic cable; the growing acceptance among computer makers and customers of AT&T's UNIX® computer operating system, which can free customers from closed, proprietary systems; and the introduction of new services and pricing options that offer business and residence customers added value from AT&T's Worldwide Intelligent Network.

Five Years Later

January 1, 1989 was the fifth anniversary of the divestiture by AT&T of the local Bell telephone exchanges. The judicial decree that ordered the divestiture successfully divided local telephone service, which was—and remains—a monopoly, from those parts of the business that are competitive. It has given us a more stable industry, with increased competition in long distance and in the manufacture of telephone equipment and products. As a result, we have been able to put more focus on our customers and less on resolving disputes in courthouses.

> *We have kept faith with our shareowners, the public and our customers.*

Although some customer confusion remains, the breakup of the Bell System had none of the dire results that many predicted it would. Local telephone prices have gone up less than generally expected, and AT&T's long distance prices have gone down 38 percent. More households than ever have telephone service, and customer surveys show satisfaction with the quality of that service. In addition, the seven regional holding companies created at divestiture have emerged as strong, successful businesses that have done very well financially.

As for AT&T, we have proven that we can be very successful in intensely competitive markets. We said all along that we could be a tough competitor, and time has shown that to be true. Also, we have kept faith with our shareowners, the public and our customers, retaining the attributes and a concern for the public interest that people came to expect of AT&T over the years. We have kept the company's financial position strong; maintained our leadership in technology and our dedication to research; and, perhaps most important, retained our reputation for quality.

Not all our goals were met. In computers and international markets, for instance, our progress has been slower than we expected five years ago. Also, the relaxation of government regulation that we anticipated after divesting the monopoly part of the business has been painfully slow in coming. The year did bring some modifications at the state and federal level. We are frustrated, however, by delays in getting a ruling on the Federal Communications Commission's plan to replace regulation of our profits in long distance services with ceilings on prices. This change would be good for consumers and AT&T. A decision is long overdue. Competition in the long distance business is sufficiently strong that we should be no more regulated than our competitors.

Looking back, AT&T made the transition to the new post-divestiture era successfully. We developed a strategy for winning: strengthening our core businesses, establishing leadership in data networking and extending our presence in international markets. And now we are moving to execute that strategy, in part by assigning clearer accountability to the people in our business units.

Direction for the Future

Our people are applying their talents, knowledge and skills to make AT&T the global leader in enabling customers to reap the benefits of information technology. That is our mission.

In that regard, I am determined that AT&T people be the best in the industry: the best trained and the most knowledgeable about customer needs. They will be armed with the best technology and managed in a way that allows them to create the most value for customers.

To increase shareowner value, we must satisfy our customers. We must also demonstrate growth—in our traditional markets as well as in other markets that we have targeted. And we must become a lower-cost supplier if we are to continue improving our profit margins.

Technological leadership is an absolute requirement for achieving our mission, but it's not enough. Only by rapidly and effectively converting technology into products and services will we achieve our aim of *market* leadership.

> *Success in the marketplace requires of all AT&T people a passion for winning and a devotion to quality.*

Success in the marketplace requires of all AT&T people a passion for winning—that and a devotion to quality in everything we do. AT&T has always stood for quality, and we are determined that it always will.

As I noted at the beginning of this message, AT&T this year suffered the loss of Jim Olson, a dynamic and visionary leader. Jim was blessed with an enthusiasm that was contagious, energy that was legendary and a mind that never rested. His untimely death was a personal loss for all of us.

ROBERT E. ALLEN
February 8, 1989

Going All Out for Business Customers

Today's long distance services market is a marathon with hundreds of competitors racing to win customers. Though the field is crowded, AT&T still sets the pace for other long distance companies.

To stay out front, we're serving customers better and competing more aggressively than ever for business contracts.

To put skilled people where they belong–at the customer's elbow–the company redeployed nearly 2,000 employees from administrative and staff jobs to sales and sales support. Our new sales people have called on thousands of customers, winning back millions in revenues and protecting more millions from competitors.

To provide better technical support for large businesses, our highly trained technicians now respond 24 hours a day–via a customer hot-line number–to both equipment and service problems.

To better meet customer needs and budgets, AT&T introduced, repriced or repackaged more than a dozen business services, such as WATS.

We also made progress on regulatory issues. The Federal Communications Commission granted us permission, pending further study, to counter a competitor's attempt to lure away one of our large customers with an unregulated discount. As a result, we saved a multimillion dollar account with Holiday Inns.

The FCC granted us approval on a case-by-case basis, pending further study, to build innovative custom-tailored voice and data networks for major clients, such as American Express, DuPont and Ford.

And, with our participation, the FCC refined its proposal to replace regulation of long distance profits with limits on prices. We support such reform.

Where we had regulatory freedom, we used it to the advantage of customers. We introduced a multi-location WATS plan that permits more businesses to qualify for volume discounts. And we intend to offer customers special promotions, when appropriate, such as waiving installation charges and providing services free for a trial period.

Actions like these make us more competitive in long distance services, in which AT&T, despite market share losses, still leads. Our target market for business services, including domestic and international, is valued at $25 billion (including charges to connect to local telephone networks).

We have spurred demand in that market by dropping our rates for basic long distance service 38 percent since divestiture. But we're not competing on price alone. We're competing on value because AT&T offers the widest range of business communications services in the industry, a worldwide network, a highly skilled and international service force, and a 100-year record of service, quality and innovation.

The wellspring of our services is the AT&T Worldwide Intelligent Network–more than two billion circuit miles. From 1987 through 1989, we will have spent $8.7 billion to expand and improve this network to benefit customers.

For example, we stepped up the conversion of our network to digital technology, which ensures superb sound and data transmission quality. By mid-1989, 95 percent of our domestic switched traffic will be carried digitally, increasing to 100 percent by the end of 1990. By the end of 1992, all private-line facilities will be digital as well.

With our new digital lightwave systems, we quadrupled our domestic fiber-optic capacity and, by laying the first trans-Atlantic fiber-optic cable, doubled circuit capacity between the United States and Europe. We plan to install more fiber-optic cable in the Pacific, Caribbean and the Atlantic.

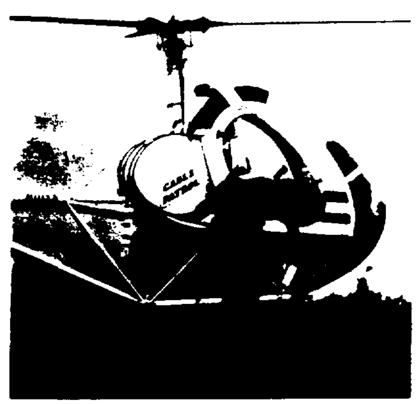
In an era when businesses are increasingly global in scope, we're working with telephone companies overseas to offer U.S. businesses abroad the kind of high-quality private lines and other custom data and voice services that we provide them at home. Starting out as a new player in international custom services in 1984, we've captured almost a fourth of the market.

No competitor can match AT&T's ability to manage public and private-line networks–monitoring and correcting problems before they affect customers.

No other long distance competitor has commercial service via the Integrated Services Digital Network (ISDN)–a set of standards that permits combining voice, data and images on existing telephone wires.

And no one else has AT&T's enviable history of reliability, including 99 percent call completion on the first try.

In this race, that's a tough track record to beat. ■



(Opposite) Learning his customers' business to better serve them, AT&T account executive Lynn Friese (left) meets with officials of the North Pacific Lumber Co. in Portland, Ore.

(Above) To further ensure the dependability of AT&T service, we increased air surveillance of our long distance cables by more than 25 percent in 1988.

Delivering the Right Solutions

Uncle Sam wants us. Cadillac is pulling ahead with our service. And The San Francisco Music Box Company is playing our song.

Whether for Fortune 500 companies or storefront start-ups, huge federal departments or small state agencies, AT&T people work hard to deliver the right communications solutions for their customers.

AT&T is uniquely positioned to offer a single-product or total systems solution. We're the sales leader in PBXs (private office switches) that serve up to 32,000 telephones and in small communications equipment that serve as few as two. We offer the widest range of high-quality voice and data services in the industry. And as our 100-year history has shown, we know how to build and manage networks.

That's why the federal government chose AT&T as the primary provider for the largest government telecommunications contract ever awarded, valued at up to $25 billion. Our 60 percent share is worth up to $15 billion over the next decade.

Along with our partners in the contract, we'll build a network serving thousands of U.S. government locations across the country and in Puerto Rico and the Virgin Islands. This digital communications system will serve more than half-a-million federal employees. It will be one of the world's most advanced private networks, offering voice, data and video communications.

Our network know-how also helped us win a $44 million contract with the state of Wisconsin to integrate data networks from five state agencies, linking mainframes, minicomputers and desktop computers from several manufacturers.

We capitalized on such abilities in 1988 by creating a Systems Integration Division to design special networks for our large customers' voice and data needs. This unit tackles a variety of business customers' problems and offers special expertise in telemarketing, data networking and network management.

This year, we also improved service to our small-business customers—users of AT&T Merlin® and Spirit® communications systems—by moving several hundred employees to in-person sales.

The market for our large communications systems, such as PBXs, is about $8 billion. The domestic market for our small-business communications systems is about $4 billion.

In the small-business equipment market, in which price is critical, AT&T filed an "anti-dumping" petition with the U.S. government after documenting unfair pricing by 12 foreign manufacturers. We charged these competitors sold small-business communications products in the United States for 75 percent less, on average, than they sold similar equipment in their home markets. We believe they have violated trade law, and in so doing harmed U.S. industry and workers.

To help us win in competitive markets, AT&T sales people learn their customers' business so they can custom-tailor solutions.

For example, working with EDS and GM's Cadillac division, we proposed a way to enhance the automaker's service image. Cadillac owners now get roadside help—a repair technician may even be dispatched—by calling an AT&T 800 Service number. As a result, Cadillac boasts outstanding roadside service.

The San Francisco Music Box Company came to us in 1980 with a start-up customer's problem: how to build a storefront operation into a nationwide business. Our solution was 800 Service to supplement catalog orders. Call-in sales soon made up half of annual revenues. Recently, we sold the company a System 75 PBX to help run the now $25 million-a-year business.

Fair Lanes Inc., an operator of bowling centers, chose AT&T's Merlin Plus system. We scored on special features, such as a phone attachment that blocks background noise—like crashing bowling pins.

Hotelecopy, Inc. checked in with AT&T when expanding its Fax Mail network. The company, which offers facsimile service to the public at more than 1,400 hotels nationwide, chose AT&T because of the high quality and reliability of our facsimile machines and network services.

Customers, from the U.S. government to the smallest business, are learning AT&T solutions are the right solutions. ■

(Above) From a West Coast start-up to a nationwide business, The San Francisco Music Box Company grew with AT&T services and products.

(Right) To improve productivity and customer satisfaction, AT&T technicians, such as Alwin Vogleson, get extra training and specialize in installing large-business equipment.

(Opposite) A small-business customer, Children's World Learning Center, uses our Spirit communications systems. AT&T sales manager Ed Mancinelli discusses the system's features with a client.

Coming of Age in Computers

In 1988, AT&T won one of the largest computer contracts ever awarded by the federal government. Newspapers dubbed it the "computer contract of the century."

Potentially worth up to one billion dollars, the contract may involve as many as 20,000 minicomputers. It is our largest computer contract since we entered the business four years ago.

The award demonstrates that AT&T has come of age in computers. And it reaffirms that operating systems compatible with UNIX® System V can link myriad computers. (An operating system is software that directs the flow of information in a computer.)

While the contract is with the U.S. Air Force, other defense agencies may order under it, and so can civilian agencies after the first year.

AT&T's 3B minicomputers are at the heart of this office automation system, but the UNIX operating system is its soul. To unify the Defense Department's maze of computer systems, the government required all bidders to offer computers compatible with the System V Interface Definition.

That bolstered AT&T's effort to develop a standard version of the UNIX operating system—open to all in the industry—based on UNIX System V. It would blend the best elements of the popular varieties of the UNIX system that have sprung up in the two decades since AT&T Bell Laboratories invented it.

By adopting a single operating system standard, the industry would give customers freedom of choice, allowing them to mix and match products from many vendors.

As a large supplier of UNIX system computers, AT&T would benefit from the opportunities an open market creates.

After we announced our plans, IBM and others formed the Open Software Foundation (OSF) to develop an alternative version. Accommodating the OSF version would force many software developers to rewrite their software at great expense.

To protect their customers, more than 30 computer and software vendors, including AT&T, formed UNIX International, Inc. to pursue a standard based on UNIX System V.

Ultimately, the future of computers is at stake: The UNIX system is the fastest growing computing environment.

While championing a standard, AT&T made deeper inroads in our targeted $121 billion global market for data networking—systems for connecting a few computers or many computer networks.

We fielded a sales force dedicated only to computer systems. Our people are intensively trained in networking solutions and in the capabilities of our new products, such as the high-speed 6386 WorkGroup System (an advanced personal computer) and the Starlan network, capable of handling 10 million bits of information per second.

We formed a strategic alliance with Sun Microsystems, a specialist in computers for scientific and engineering markets, and agreed to buy up to 20 percent of the company over the next two years.

And we successfully marketed applications for specific industries.

In the lodging industry, we made sales to three major chains—Hyatt, Ramada and Trusthouse Forte Hotels, Inc., operator of Travelodge and Viscount hotels. These multimillion dollar deals were for UNIX systems that improve the accuracy of guest check-in and accounting and speed up guest check-out time.

In health care, the Voluntary Hospitals of America will use our UNIX system computers so doctors can access their patients' records—even CAT-scans and X-rays—stored in hospital computers.

In finance, the Chrysler Financial Corp. signed a multimillion dollar deal for our minicomputers, terminals and printers for a UNIX system-based network to connect branches across the nation and in Puerto Rico and Canada.

And, in transportation, Greyhound Lines decided to "go AT&T" for a faster ticketing system that uses our personal computers and printers.

Internationally, our efforts to enter the People's Republic of China paid off with a sale to Xinhua, the official news agency. A UNIX system-based network enables staffers to write, edit and compare translations in multiple languages—proving once again AT&T and the UNIX system can overcome just about any computer communications problem. ■

(Opposite) AT&T won a computer contract with the U.S. Air Force valued at up to a billion dollars.

(Top) This Hyatt Hotel is served by a computer-efficient registration system thanks to AT&T's sales team, Jim Guido (left) and Joe Malick.

(Above) AT&T software designers, such as William Sherman, worked with Sun Microsystems to develop the OPEN LOOK™ graphics system.

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PAGE #: **30**

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DATE(S) OF UNSCANNABLE(S)	**NONE**		

Courting Consumers—with Quality

It fell on the driveway and was crushed by a half-ton truck—but still gives that "next door" sound.

"I picked it up, switched it to talk and couldn't believe it still worked," says Selzam of Jackson, N.J. He glued the pieces together and still uses the phone.

Stories like this explain why the public in a 1988 Gallup survey rated AT&T one of the top 10 companies in quality. Quality helped AT&T bounce back from consumer flirtation with competitors' "cheap" phones in the mid-1980s to become the leading seller of consumer phones today.

ur target market for consumer products is $3.8 billion. AT&T is focusing on the fastest growing segments, such as answering machines, cordless phones and advanced feature phones.

To meet demand and satisfy changing consumer tastes, we offer dozens of choices in our eight major product lines. This past year alone, we introduced two dozen new models or model changes, including a new wireless security system.

At 425 AT&T Phone Centers across the nation and through some 9,000 other retail outlets, the company offers products to suit most consumer needs and budgets—from basic phones and cordless phones, to answering systems and typewriters.

And Phone Centers now sell products for very small-business and home-office customers. One of these products, the new easy-to-install System 2000 telephone, provides features tailored for the home-office market—speakerphone, two-line connection and intercom.

Our leased phone business has declined for the last five years as consumers have bought their own telephones, but leasing remains an important option for many customers who prefer the convenience, service guarantees and flexibility that it gives them. They appreciate the extras, like free replacement when their phones need repair and free color exchanges when they redecorate.

elping to stabilize this business, AT&T expanded the choices in leased products, adding new models of cordless, memory and speakerphones. We're committed to serving this market with even more choices.

Looking beyond our shores for opportunities, we rang up the first overseas sales of AT&T phones—to distributors in Australia, Mexico and Singapore. The company is also building a plant in Bangkok to make corded phones so that our Singapore factory can focus on cordless phones—one of our fastest growing product lines.

In both consumer products and long distance services we're easier than ever to do business with.

In 1988, AT&T set up one nationwide number—1-800-222-0300—for consumers to call to get answers to most questions on products and services. The customer's account record is flashed instantly on a computer screen used by our service representative to assure a quick response.

We made it easier for Spanish-speaking consumers to use AT&T's operator services. And we expanded the National Bilingual Center, which provides product and service information to Spanish-speaking consumers.

We've done extremely well when customers are asked to select a long distance carrier. More than three out of four consumers choose AT&T because of our unmatched reliability and customer service.

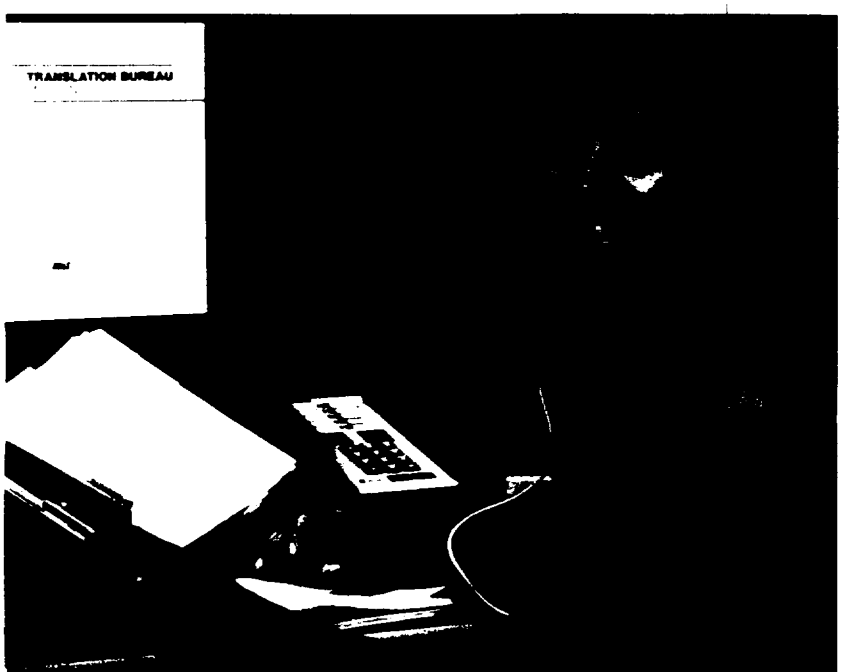
We are constantly improving quality, value and service in our market for residence long distance, estimated at $21 billion worldwide (including charges to connect to local telephone networks).

For example, in 1988 we increased digital transmission and added more fiber-optic systems to the network to help ensure crisp, clear connections.

e made it easier to phone home by expanding the number of traveler and military locations served by USA Direct* service, which gives overseas callers direct access to an AT&T operator in the United States. We also offer international pricing plans that enable consumers to save on calls to Canada, Israel, the Philippines and the United Kingdom.

And AT&T long distance prices are way down—more than 38 percent—since 1984. Today a 10-minute long distance call dialed direct within the continental United States—no matter the distance or the time of day—costs less than $3. Our Reach Out* America pricing plan has been expanded to offer the opportunity to save 24 hours a day, and we reduced the price by 5 percent.

No wonder Money magazine in 1988 rated our Reach Out plan "the best long distance bargain of all." ■



(Above) AT&T Phone Centers are being redesigned and relocated to make them more attractive and convenient for consumers. At a remodeled store, manager Eileen Crawford (right) points out the features of one of our high-quality cordless telephones.

(Left) For help in making long distance calls, our Spanish-speaking customers need only say "AT&T Español" to one of our operators and a translator, such as Paola Zelada, will be added to the line.

Helping Build Networks in a Global Market

On Sunday, May 8, in the Chicago suburb of Hinsdale, fire in a local telephone switching office knocked out service to more than 35,000 Illinois Bell customers.

Before the smoke cleared, AT&T Sales Director Mike Windle and Operations Director George Prill were on the scene with their Illinois Bell customers, assessing how AT&T could help. In the following days, AT&T products, including our 5ESS* switch, were shipped to Illinois Bell on an emergency basis. Some 150 AT&T employees worked 12-hour shifts to help restore service.

Hinsdale is but one example of fast service in crisis that AT&T Network Systems provides its customers—the former Bell System companies and other operators of large networks.

And service is a good part of why AT&T remains the leader in our targeted $51 billion worldwide market for telecommunications network equipment.

But AT&T offers more than high-quality products and backup service. Using advanced technology, we work with telephone companies to create profitable new ways to meet their customers' needs.

One of the most powerful new technologies is the Integrated Services Digital Network (ISDN). ISDN enables businesses to combine voice, data and images on existing telephone wires.

To illustrate, a stockbroker can give a fast response to a client on the run: While the client is on a pay phone, the broker in Des Moines can tap a computer in Chicago for market updates and add on a colleague in New York to learn what's being heard on Wall Street—all on a pair of phone wires.

AT&T has moved ISDN from promise to practice through leading-edge research and development, and the most sophisticated local digital switch, the 5ESS switch. More than 25 million lines of this switch are installed around the globe.

Helping local telephone companies create new consumer services, our products are bringing the enormous information capacity of optical fiber to homes and offices.

To ensure the reliability of these and other telephone company services, several of our new products automatically redirect network traffic in emergencies, offering virtually uninterruptible service.

AT&T expanded through alliances in 1988. We agreed to a joint venture with GTE in which we will own 49 percent of AG Communications Systems, assuming 100 percent ownership in 15 years. This new company will develop ISDN and other technologies for GTE switching systems.

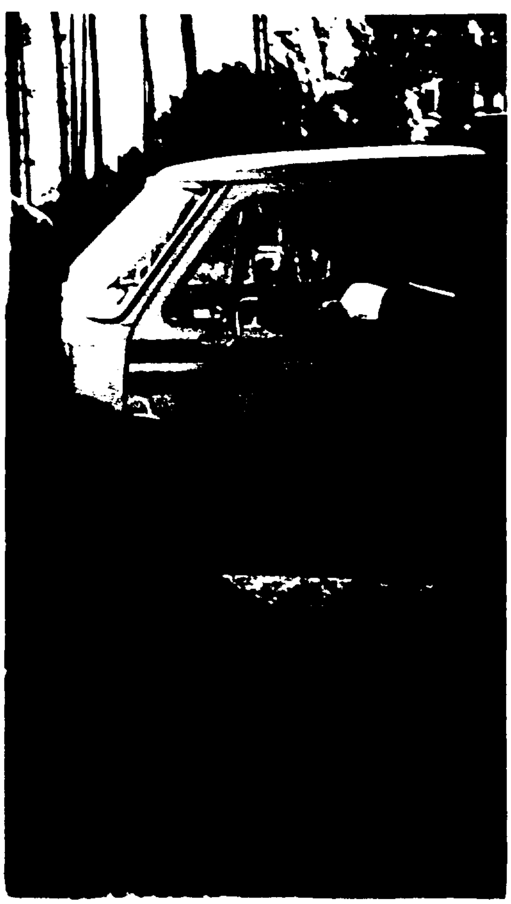
Internationally, we increased our share of the joint AT&T and Philips Telecommunications (APT) venture

from 50 percent to 60 percent. Reflecting our growing global presence, the venture was renamed AT&T Network Systems International.

We sold fiber-optic and local transmission systems in the People's Republic of China, and in Singapore a 5ESS switch was used for the first time as an "international gateway" to handle all voice and data communications with other nations.

Through service, technology and strategic ventures, AT&T is helping to build networks around the world. ■

Fiber cable to the home creates new service opportunities for local telephone companies: at-home banking, shopping and videotex, among them. At a new housing development, AT&T account executive Arlene Franlin and Bell Labs' Dennis McGowan discuss a fiber cable installation with a New Jersey Bell technician.



AT&T's factory near Madrid began shipping electronic components in 1988. Juan Miguel Rodriguez holds one of the chip wafers.

Chipping Away, Internationally

By 1991, motorists trav... will be able to use car ph... undaunted by national ... European mobile phone ...

Many of those travelers will call on phones that rely on components custom-designed by AT&T.

To expand our business and tap the liberalized European economic market, AT&T Microelectronics opened new design centers in Paris and Milan. These centers use our advanced computer-aided design technology and the expertise of AT&T employees to custom-tailor computer chips and other components.

One of the many devices we designed was a speech-processing chip for a leading European vendor of car phones that meets the new mobile phone system's standard.

AT&T Microelectronics, which sells to AT&T units and outside businesses, plans through international and domestic expansion to more than double its percentage of external sales within five years. That's an ambitious but realistic goal. The world market for specialty devices like ours—custom chips, optical data links and other communications components—is more than $12 billion, and growing fast.

Today, AT&T has nine custom-design centers in the United States and overseas, including centers in England, Singapore, Spain, West Germany, and now in France and Italy. We have 13 manufacturing locations worldwide, including Mexico, Singapore, Spain and Thailand. And we opened a new marketing and development office in Japan in 1988.

We're also expanding domestic partnerships, enlarging a major alliance with Western Digital that will produce about $170 million in revenues over two years and adding a partnership with Hewlett-Packard to co-develop printed circuit-board technology.

Independently, we market a broad range of devices to electronic equipment manufacturers. Among our leading-edge new products is an ISDN chip that enables telephones to access enhanced services, such as voice mail and caller identification.

With advanced devices like this, and through our custom-design centers abroad and partnerships at home, AT&T is poised for rapid growth. ■

Making Technology Work for Customers

If a planning problem involves hundreds of thousands of variables and millions of dollars—and must be solved fast—the answer may be AT&T's KORBX* System.

Sophisticated software run by advanced hardware, the system speeds through complex problems to deliver answers worth potentially tens of millions of dollars to business and government customers.

Math discovery-turned-product, the KORBX System is the result of a new breakthrough from AT&T Bell Laboratories.

Bell Laboratories, the foremost industrial laboratory in the world, is the invention factory of AT&T, producing on average a patent per working day. In 1988, AT&T spent $2.6 billion on research and development, about 90 percent of that on new products and services, the balance on basic research. At Bell Laboratories, development divisions support specific AT&T businesses and are funded by those units.

The KORBX System exemplifies the payoff from basic research. The story began in 1984 when Bell Laboratories mathematician Narendra Karmarkar devised a unique way of solving notoriously complex "linear programming" problems. Developers transformed his insight into a system that proved astonishingly fast, solving AT&T's own network problems hundreds of times faster than conventional methods, even solving problems that previously defied answer. After rigorous testing, the KORBX System was launched commercially by AT&T's Advanced Decision Support Systems unit.

The system could benefit any business or government agency that wants to determine the best scheduling of materials, equipment or personnel under complex circumstances. For Delta Air Lines, we developed a system that dramatically streamlines the planning of pilot flying time.

While the KORBX System increased the speed of problem solving, another development increased the capacity for lightwave communication—voice, data and images transported as pulses of light through gossamer strands of glass.

Bell Laboratories, which pioneered these laser-driven systems, developed the highest-capacity commercial lightwave system in 1988 for AT&T Network Systems. Flashing 3.4 billion bits of light-encoded information a second, it squeezes 50,000 simultaneous phone calls into a single pair of fibers. The system will be used first in AT&T's network.

Such high-speed systems depend on lightning-fast components, and we lead in this device technology as well.

Our researchers created the world's speediest bipolar transistor—a kind commonly used in high-speed electronic and lightwave systems—which can switch one bit of data in a trillionth of a second. That's 12 times faster than the transistors in today's supercomputers.

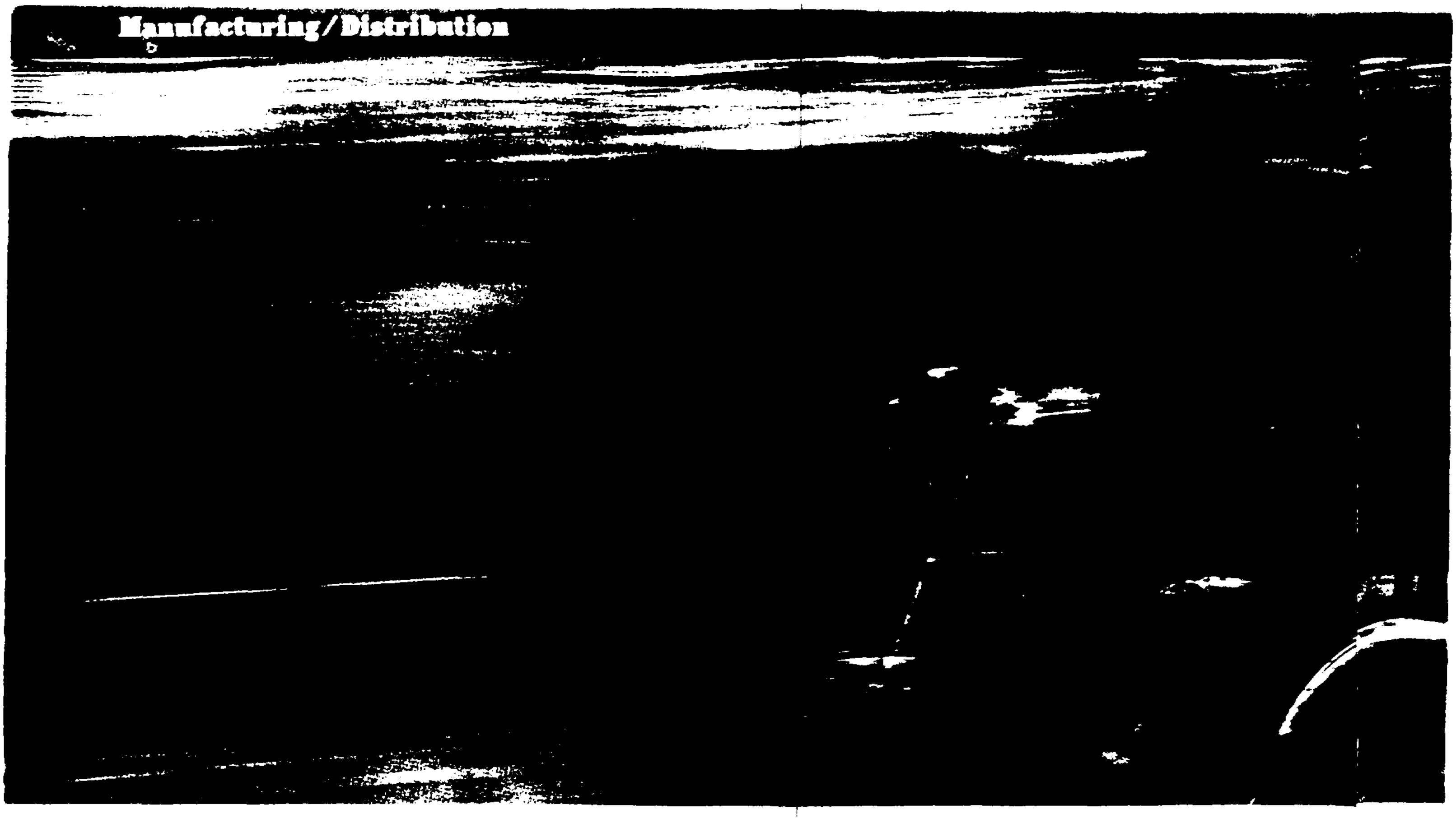
With successful development, the super-fast transistor could help create a new generation of lightwave systems, switching systems and supercomputers several times faster than their predecessors. They could drive down the cost of computer solutions and lightwave communications.

An ongoing program of quality improvement underlies these and other innovative projects. AT&T literally "wrote the book" on quality in 1956—a still-read handbook on statistical quality control. Bell Laboratories carries on the tradition by adding new knowledge on such topics as designing for manufacture and automating quality processes.

Bell Laboratories turns theory into practice and technology into applications for AT&T and our customers. ■

(Opposite) A mathematical breakthrough at AT&T Bell Laboratories was developed into a planning problem-solver called the AT&T KORBX System. Andrew Watson leads an AT&T team that used the system for flight crew planning with Delta Air Lines.

(Above) AT&T Pixel Machines is a new business venture born out of Bell Labs technology. Pixel's advanced graphics system was used to study the space shuttle's robot arm. Joy Frederick (standing), Nick Damenti and Pearl Baldwin are Pixel Machines employees.



Doing It the Customer's Way

AT&T is guided by only one definition of product quality—the customer's definition.

It differs for each customer and every product, but always includes the right features, top performance, fair price, solid reliability, fast availability and dependable servicing.

To keep that focus every step of the way, we're organized for quality. Our product teams involve the marketer who learns what customers want, the developers who design the product, the factory engineer who oversees its production, the warehouse manager who ships it and the technicians who install and service it.

As a result, our customer surveys show gains in satisfaction with performance, delivery and other measures of quality. A few customers even give us awards: Sears department stores named AT&T one of its top suppliers of consumer goods, as did K mart stores.

Our new processes chop away at manufacturing time, too, increasing productivity. Since 1986 the time it takes to make a million-component 5ESS switching machine has been cut in half, as has been the time to build our PBXs. Merlin communications systems are now being built dramatically faster—cut from three weeks to two-and-a-half hours since 1987.

Overall, in 1988 we continued a trend of 10 percent annual improvement in productivity.

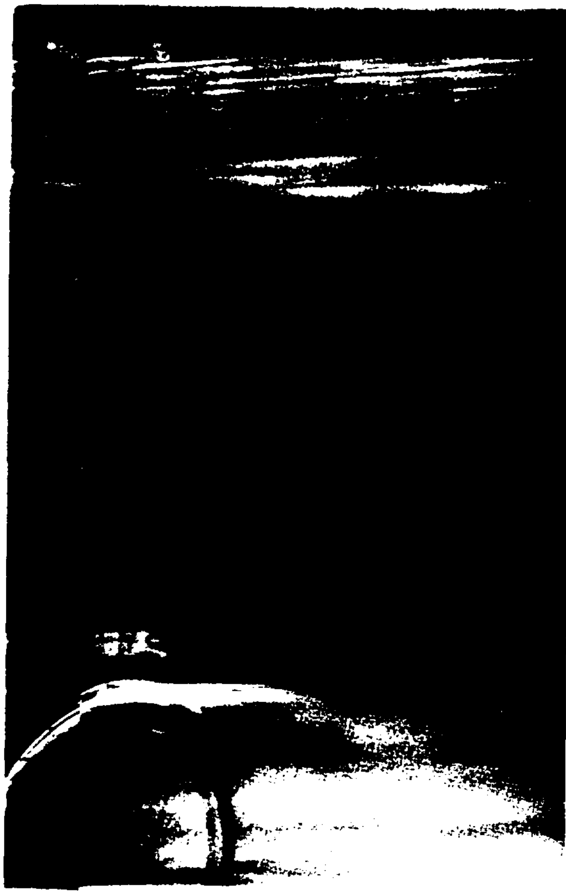
Because of such productivity gains, which increase America's industrial competitiveness, our factory in Shreveport, La. won a U.S. Senate Productivity Award this past year.

AT&T factories in Denver, Reading, Pa., Singapore and a dozen others across the country and around the world have changed dramatically to adopt these new methods.

One of the driving forces has been advanced technology. As more product features are embedded in computer chips and software, the cost of labor in assembly comes down as a percentage of a product's cost. For example, now up to 80 percent of the cost of a PBX is in components.

As a result, AT&T focuses on reducing the cost of materials through buying selectively, improving supplier relationships and, especially, cutting inventory in our factories. Carrying, storing and managing inventory is costly—some call it "sleeping money."

Our antidote is delivery of parts as the production line needs them. We pull parts



(Above) In a factory several football fields long, the speediest way to get parts to the assembly line is on wheels.

(Above) Workers at our Denver factory, with the push of a button, can bring circuit board assembly to a halt to trace and fix a problem.

(Below) A fast, accurate machine inserts tiny components into circuit boards.

out of stockrooms only as needed, and our suppliers replenish stocks just before we run out.

Components may be small but their cost runs big: By managing inventory better, our Denver factory alone has saved $150 million since 1985.

To make this just-in-time system work, virtually all parts must be perfect. That's why AT&T's own semiconductor components are of world-class quality. And that's why we're working closer than ever with our other suppliers. Those who give us quality get our business, those who don't lose our business.

AT&T has expanded "just-in-time" beyond well-timed delivery. We use this process to discover and eliminate error and waste.

Product designers work with factory engineers to make sure a design is easy to manufacture, and therefore less prone to

defects. Factory workers shut down the line with the push of a button if they spot a problem. And plant managers supply our assembly line people with support, training and tools to do the job right.

Quality is a team effort. Managers at our Denver plant share with their workers the results of customer surveys on our PBXs—the complaints and the compliments. At Oklahoma City, "quality circles" meet when any employee—not just a supervisor—sees the need. At Shreveport, workers write suggestions on a bulletin board; before the end of the day, managers are assigned to act on each one.

Through small actions like these, better operations on a large scale and the dedication of our people, AT&T is redefining quality—the customer's way. ■

Continuing Progress Despite Obstacles

In 1988, we reported our highest revenues in five years. We also accelerated the conversion of the AT&T Worldwide Intelligent Network to fully digital operation and took other steps to enhance our earnings potential.

Because we are accelerating network digitization, it was necessary to write down the value of older plant and equipment and to record expenses for reducing jobs and other actions related to these plans. Although the charge resulted in our reporting a net loss for the year, digitization is a positive action because we're moving our technology more rapidly into the marketplace. Because the affected plant and equipment was paid for earlier, cash outlays will be limited. Consequently the charge does not adversely affect our cash position, our liquidity or our ability to pay dividends.

Excluding the effect of this one-time charge, we would have reported an increase in earnings in 1988. For the first time in three years, we increased total operating revenues because of strong growth in product sales in addition to continuing growth in sales of services. The growth in product sales more than offset the decline in rental revenues for the first time since 1984.

In 1988, we continued to make strategic investments. In January, we reached agreement to purchase up to 20 percent of Sun Microsystems, Inc., a computer company. In July, we announced a digital switching systems joint venture with GTE Corporation. At the end of the year, we announced plans to acquire Paradyne Corporation, a data communications company; Eaton Financial Corporation, an office equipment financing company; and U.S. Trust's Advanced Information Service subsidiary, a financial services company.

A Five-Year Perspective

As we review the years since divestiture, our financial results reflect progress despite obstacles. We recorded a \$3.2 billion charge in 1986 for business restructuring and other actions and a \$6.7 billion charge in 1988 for network digitization. While adapting to significant industry changes, we have grown the business, increased revenues and made improvements in underlying profitability under difficult competitive conditions.

Long distance prices have declined by 38 percent since 1984, but use of our network has mushroomed. To handle the increased volumes, we earmarked the large majority of our capital expenditures for meeting demand and enhancing the capabilities of our network. We supplied much of the equipment for local telephone

Five-Year Summary of Selected Financial Data (unaudited)*

Dollars in millions (except per share amounts)	1988	1987	1986	1985	1984
Results of Operations:					
Total operating revenues	**$35,210**	$33,768	$34,213	$34,496	$33,187
Total operating costs and expenses	**38,277**	30,252	33,848	31,477	30,893
Net income (loss)	**(1,669)**	2,044	139	1,557	1,370
Dividends on preferred shares	**1**	23	86	110	112
Income (loss) applicable to common shares	**(1,670)**	2,021	53	1,447	1,258
Earnings (loss) per common share	**(1.55)**	1.88	.05	1.37	1.25
Dividends declared per common share	**1.20**	1.20	1.20	1.20	1.20
Assets and Capital:					
Property, plant and equipment–net	**$15,280**	$20,808	$21,101	$22,262	$21,343
Total assets	**35,152**	39,473	39,534	40,688	39,773
Long-term debt including capital leases	**8,128**	7,917	7,660	7,794	8,718
Preferred shares subject to mandatory redemption	**—**	82	912	1,457	1,494
Common shareowners' equity	**11,465**	14,455	13,550	14,633	13,763
Net capital expenditures	**3,942**	3,482	3,587	4,031	3,424
Other Information:					
Operating income (loss) as a percent of operating revenues	**(8.7)%**	10.4%	1.1%	8.8%	6.9%
Net income (loss) as a percent of operating revenues	**(4.7)%**	6.1%	0.4%	4.5%	4.1%
Return on average common equity	**(11.3)%**	14.4%	0.3%	10.1%	9.5%
Market price per common share at year-end	**$28.75**	$27.00	$25.00	$25.00	$19.50
Book value per common share at year-end	**$10.68**	$13.46	$12.64	$13.68	$13.26
Debt ratio at year-end	**44.7%**	38.0%	37.5%	36.9%	38.5%
Employees at year-end	**304,200**	303,000	316,900	337,600	365,200
Before consolidation of AT&T NSI	**299,200**				

*1988 data were significantly affected by a charge for accelerated digitization program costs. 1985, 1986 and 1987 have been restated because of the consolidation of AT&T Credit Corporation. 1986 data were significantly affected by major charges for business restructuring, an accounting change and other charges. See Notes (A), (B), (C) and (D) to the financial statements.

(Opposite) To give our customers better service and increase revenues, AT&T moved nearly 2,000 people into sales and sales support jobs. Redeployed employees were given special training at our national sales training center near Denver as part of the preparation for their new assignments.

companies to modernize and to provide customers with equal access to different long distance companies.

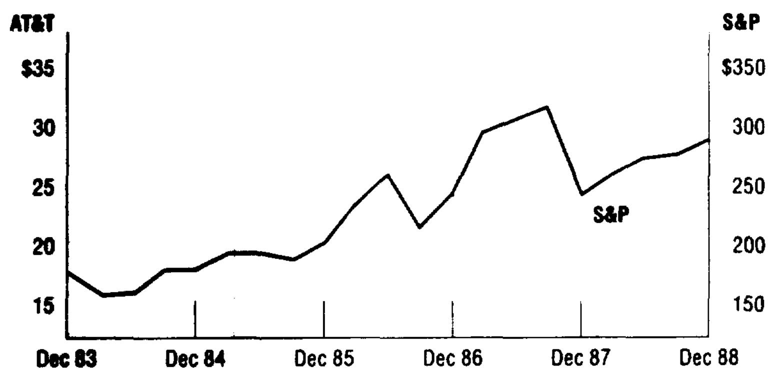
The business of selling customer premises equipment, such as telephones and office systems, was opened to competition several years before divestiture. Our revenues from renting communications equipment declined substantially over the past five years as many rental customers decided to buy equipment. At the same time, our sales of communications equipment increased.

We entered the data products business at divestiture when our principal competitors in the market were already established. We have committed substantial resources to grow and profit in this strategic business since then. Progress became apparent in 1988 with the award of an important contract by the federal government.

Over five years, we have realigned operations, reduced and redeployed employees, and cut costs to increase our competitiveness. Our workforce has been reduced significantly; however, we obtained a majority interest in AT&T Network Systems International (AT&T NSI) in 1988, which added approximately 5,000 employees to our total.

AT&T has remained strong and in sound financial condition during this difficult period. We were able to reduce total debt outstanding by $1.0 billion and to redeem $1.5 billion of preferred stock, resulting in lower financing costs and higher earnings for shareowners. We maintained the annual common stock dividends of $1.20 per share.

We are determined to continue building our company and generating value for our shareowners by providing superior quality and service to our customers. ■



AT&T Financial Performance

1988 financial results reflect improvements in many areas of the business and a one-time charge for actions we took in our long distance operations.

The most notable improvement was the growth in total operating revenues, our first since 1985. Our total operating revenues were the highest since divestiture. The 1988 revenue increase reflects significant growth in product revenues which more than offset the continuing decline in rental revenues. In addition, the gross margin percentage on products was higher and financing expenses declined.

In 1988, we recorded a major charge of $6.7 billion before taxes, and $3.9 billion or $3.66 per share after taxes, as a result of our decision to accelerate the digitization of our long distance network. This charge produced a reported net loss of $1.669 billion or a negative $1.55 per share for the year. Excluding the charge, we would have reported an increase in earnings to $2.266 billion or $2.11 per share in 1988. In 1987, we reported earnings of $2.044 billion or $1.88 per share.

Major Revenue Streams

AT&T operates predominantly in one industry, the information movement and management industry. Our total operating revenues include sales and revenues in the major revenue streams reflected in the revenue table on page 21. These sales and revenues are summarized as sales of services, sales of products and rental revenues on our statement of income, which is discussed further beginning on page 23.

Telecommunications Services

In the last two years, sales of telecommunications services, net of access charges, increased steadily primarily due to higher traffic volumes on the AT&T switched network. The volume of switched services, measured by conversation minutes billed to customers, increased at an annual rate of 8 percent in 1987 and 5 percent in 1988. While net revenues increased in both years, gross revenues from switched services declined in 1987 primarily as a result of significant price reductions in that year.

We pass on, in lower prices to customers, our savings from lower access charges. In 1987, we reduced prices for switched interstate services by about 16 percent. We reduced interstate prices by another 7 percent in 1988. We also reduced prices for long distance calls within states during these two years.

Revenues from private line services increased over the last two years, primarily because we raised prices. In both years, other long distance companies, who lease our facilities, moved some call volume to their own networks. At the same time, those companies continued to attract business from our other customers.

In December 1988, the federal government awarded a team led by AT&T 60 percent of the contract to replace the Federal Telecommunications System that is provided in part by AT&T. That award, which is under protest by an unsuccessful bidder, is estimated to be worth up to $15 billion in revenue to AT&T over the next ten years.

Competition in telecommunications services markets is intense. Our competitors have captured significant market shares in business services, including WATS and 800 services. Yet, AT&T is subject to a level of regulation that does not apply to other long distance companies. This unequal regulatory burden adds to our costs and restricts our ability to respond to marketplace conditions. Any possibility that this inequity might continue is a risk to our potential for future earnings growth. The Federal Communications Commission is considering alternative forms of regulation.

A Look at: Telecommunications Services Revenues

Long distance voice, data and video transmission services are provided over the AT&T Worldwide Intelligent Network. This portion of our business is regulated by the Federal Communications Commission and also by regulatory commissions at the state level.

Our prices for telecommunications services include "access charges" for connecting customers to our network using the equipment of the local telephone companies, such as telephone cables and switching machines. The local telephone companies also collect a portion of access charges directly from customers in the form of monthly line charges. Since AT&T essentially passes on the access-related portion of revenues to the local telephone companies, we report telecommunications services revenues on our statement of income after deducting access charges.

Most long distance services are provided to the general public on a first-come, first-served basis using equipment which is reserved to the customer only for the length of a call. These are called switched services and they are billed on the basis of the length of calls measured in conversation minutes. On the other hand, private line services are provided, primarily to large-business customers, using both the switched network and other equipment dedicated to their specific use.

Business Communications Products

Business communications products include PBX equipment, key telephone systems, facsimile machines and related equipment and services. We rent, sell and service large-business communications products through the Business Markets Group. We serve customers requiring smaller systems through the General Markets Group.

In each of the last two years, we increased unit sales of large-business communications equipment. However, we responded to the ongoing competitive pressures by reducing and discounting our prices with the result that revenues from sales of this equipment increased only slightly each year.

We similarly responded to competitive pricing pressure in small-business communications equipment; unit sales increased but revenues were essentially unchanged in 1988 after decreasing slightly in 1987. In December 1988, we filed a petition with federal authorities charging some foreign manufacturers with dumping small-business communications equipment in the United States.

Data Products

Data products, including personal computers, mid-range computers, software and peripheral equipment, are rented, sold and serviced by the Data Systems Group. Sales of these products remained relatively stable over the two-year period. To achieve future growth in this intensely competitive business, we continue to improve our product line and our sales and support capabilities.

In October 1988, we were awarded a contract in which we will be the primary vendor to supply computer systems to the Department of Defense. The contract has an initial duration of two years; the contract can be extended for an additional six years and has a potential value of $929 million.

Consumer Products

Sales of consumer products increased strongly over the last two years. Sales growth in cordless telephone sets was especially strong and we introduced successful new products across our entire consumer products line. At the same time, we increased the number of sales outlets through distribution agreements with additional retailers. We also introduced a new sales incentive program, provided a wider array of offerings and redesigned AT&T Phone Centers to further boost revenues.

Business, Data and Consumer Products Services and Rentals

These service revenues consist primarily of installation, movement and rearrangement, maintenance and other services for data and communications equipment. Service revenues increased both years because of higher equipment sales, which boosted buyers' demand for these serv-

A Look at: PBX Equipment

A PBX (private branch exchange) is a telecommunications switch. PBX equipment, such as the AT&T System 85, is used by our customers usually to provide voice and data services to many extensions within an office or other complex. As a result, customers require fewer lines from the local telephone company. In addition to being economical, these systems can provide useful features, such as the ability to send messages between extensions, forward or transfer calls, or conduct telephone conferences. Recently, AT&T has enhanced the System 75 and System 85 equipment so that customers can expand capacity easily and without costly replacement of their existing systems. ■

Revenues
Dollars in millions

	1988	1987*	1986*
Telecommunications Services			
AT&T Switched Network	**$30,428**	$30,302	$31,609
Private Line	**4,861**	4,845	4,825
Less: Access Charges	**16,764**	17,611	19,593
	18,525	17,536	16,841
Business, Data and Consumer Products			
Sales	**3,409**	3,155	3,212
Services	**1,491**	1,439	1,392
Rentals	**3,016**	3,728	4,796
	7,916	8,322	9,400
Telecommunications Network Systems	**6,827**	6,179	6,185
Other Revenues			
Sales	**1,098**	872	781
Services	**817**	855	1,003
Rentals	**27**	4	3
	1,942	1,731	1,787
Total Revenues	**$35,210**	$33,768	$34,213

*The 1986 and 1987 amounts have been restated to include the revenues from AT&T Credit Corporation which are reflected in Other Revenues ices, and because we marketed these services more aggressively.

Revenues from renting data and communications products to business customers declined sharply in both years, as we expected. With intense competition and aggressive pricing of products, leasing has become less economical for some customers. To stabilize this business, we continued to introduce attractive leasing options which protect customers against equipment obsolescence.

The Consumer Products unit also rents telephone equipment to residential and small-business customers. Over the two-year period, rental revenues for consumer products declined. As in the case of business products, many consumers elected to buy their own equipment. On the other hand, many remaining customers continue to lease because of AT&T maintenance and the ability to exchange equipment. In addition, a rental price increase in March 1988 and an increase in products which can be leased, such as cordless phones, slowed the decline in rental revenues for consumer products.

Telecommunications Network Systems

These revenues come from sales of large switching and transmission systems and related equipment used primarily by other communications services companies in routing and transporting voice, data and video signals over telecommunications networks. The revenues include sales of software to control switching systems, other network-stored program control systems and administrative and maintenance systems. They also reflect media sales (cable and wire products, including fiber-optic cable and outside plant apparatus).

These sales increased in 1988 after remaining almost flat in 1987. Higher 1988 sales came primarily from media and software, and international sales from our newly consolidated subsidiary, AT&T Network Systems International (formerly AT&T and Philips Telecommunications).

AT&T Network Systems International is a joint venture of AT&T and N.V. Philips. In January 1988, we increased our ownership to a controlling interest of 60 percent of the voting shares from 50 percent and consolidated this venture in our financial statements. Previously, we accounted for this venture using the equity method, so the consolidation itself does not affect net income comparisons with prior periods.

Revenues for network telecommunications equipment remained stable in 1987 despite slow growth in domestic markets and the fact that some of our traditional customers continued to diversify among suppliers.

To continue revenue growth, we are focusing on new domestic and international markets. We expect gradual progress under highly competitive conditions.

Other Revenues

AT&T Microelectronics

AT&T Microelectronics sells advanced electronic components, including custom silicon chips, photonic devices, complex printed circuit boards and miniaturized power supplies, to other AT&T business units, the federal government, other equipment manufacturers and other external customers.

External product sales by this business unit are included in the revenue table as "Other Revenues–Sales." These sales increased in each of the last two years, reflecting major supply contracts with Western Digital Corporation, Hewlett-Packard and other high-technology firms, and increased demand from equipment manufacturers for design and production of microelectronic devices.

AT&T Federal Systems

Special design products and related special services sold to the U.S. government by AT&T Federal Systems increased each of the last two years. These sales are also included in the revenue table as "Other Revenues–Sales." In addition to these sales, the Federal Systems unit functions as the account representative for sales to the federal government in several revenue streams.

Services and Rentals Revenues

"Other" service revenues includes sales of services by American Transtech and AT&T Credit Corporation (AT&T Credit). It also includes revenues from leasing telephone switching and related equipment and real estate.

In 1988, we began consolidating our wholly owned finance subsidiary, AT&T Credit, in our financial statements. Previously, we accounted for this subsidiary using the equity method. This change in our accounting policy was required by Statement of Financial Accounting Standards No. 94, "Consolidation of All Majority-owned Subsidiaries." As a result of the consolidation, all financial information in this report for the years preceding 1988 has been restated. (Please see Note (B) and Note (I) for further information.)

AT&T Credit finances sales and leases and provides inventory financing to enhance the marketability of AT&T products. It also offers a full range of financing programs for non-AT&T equipment. AT&T Credit's finance revenues increased in each of the last two years. Revenues also increased both years for our financial services subsidiary, American Transtech Inc. This subsidiary provides shareholder services, such as mailing quarterly and annual reports, and performs administrative services for sponsors and beneficiaries of savings plans.

The significant decline in "Other" service revenues over the last two years is the result of reduced revenues from leasing telecommunications facilities to local telephone companies. These leases, called Shared Network Facilities Agreements, are for equipment and buildings which were jointly owned by AT&T and the local telephone companies prior to divestiture. The revenues are expected to continue decreasing each year as the leases are gradually phased out.

STATEMENT OF INCOME

Total Operating Revenues

We recorded higher sales of services and higher sales of products in each of the last two years. In 1988, the increased sales of services and products were more than sufficient to offset the continuing decline in rental revenues. However, for 1987 and 1986, the decline in rental revenues exceeded the combined increase from products and services, leading to lower total operating revenues.

With continuing success in growing our services and product revenues and smaller declines in rental revenues, we expect to maintain an upward trend in total operating revenues. However, AT&T operates in intensely competitive and dynamic markets and faces significant risks as well as attractive opportunities. Changes in technology, regulation, competitive conditions or economic conditions could have a significant effect on our future financial performance. The two large contracts awarded to AT&T by the federal government in 1988 will help increase revenues.

Costs and Expenses

Because rental revenues continued to decline over the last two years, many costs directly associated with renting equipment also declined due to the lower volume. Similarly, the substantial increase in sales volumes for products in 1988 led to higher total cost of products. In 1988 and 1986, higher levels of inventory-related charges also added to cost of products. In 1986, such charges principally were to reduce certain products to fair market value. The charges in 1988 were primarily for reducing older equipment to fair market value and for disposals of excess maintenance stocks.

During all three years, costs were reduced by improvements in operating efficiency. In services, we are now able to process increased traffic at a lower cost per minute. This is due largely to the technologically advanced facilities we put in place as part of our network modernization program. In products, we improved manufacturing efficiency as a result of facility consolidations, use of new manufacturing techniques and a continuing emphasis on cost reduction and control.

In both years, increases in selling, general and administrative expenses were primarily the result of our efforts to increase revenues. To increase customer recognition of the value of our products and services and to provide greater responsiveness to customer needs, we expanded direct marketing and sales efforts and increased sales support activities. Expenses also increased for the operation and continuing development of our customer account service, billing and inquiry systems.

Increases in research and development expenses over the last two years reflect our commitment to quality and to bringing new and better products and services to customers more quickly. The inclusion of research and development expenditures by AT&T Network Systems International added to expenses in 1988. Research and development expenses in 1987 include higher depreciation charges for certain research equipment.

In addition to factors mentioned previously, total costs and expenses reflect higher expenditures in 1988 on employee benefits, including higher health care costs.

The Financial Accounting Standards Board is currently reviewing the accounting for postemployment benefits other than pensions. A standard is expected to be issued in 1990 that will require companies to accrue postemployment costs during the years employees are working and earning a right to these future benefits. The standard is expected to have a significant negative impact on net income, when adopted.

To retain the benefits of cost reductions and controls instituted in the past and to improve our competitiveness further, we continued efforts to cut costs and expenses in 1988. We announced plans to reduce overhead expenses and force levels over the next five years in the Network Operations Group. We redeployed nearly 2,000 employees from staff positions to direct sales positions to increase revenues, to provide better customer service and to reduce administrative expenses. In July 1988, we halted most hiring and instituted expense cuts for headquarters organizations.

The charge for network digitization in 1988 included $5 billion for the writedown of network analog equipment and $1.7 billion for the future costs of removing analog plant, writedowns of related support assets and force adjustments associated with digitization. (Please see Note (C) for further information.) This stepped-up digitization program calls for 95 percent of AT&T's domestic switched traffic to be carried on digital facilities by mid-1989, increasing to 100 percent by the end of 1990. We expect that all of our domestic switched and private line facilities will be digital by the end of 1992.

Because of the rapid pace of change in technology, we plan to increase depreciation rates for plant and equipment in our network.

The 1986 provision for business restructuring of $2.2 billion represented the estimated cost to reduce the workforce and to consolidate various facilities and factories over several years. The programs and plans affect most AT&T business units and support organizations. Significant progress has been made in resizing activities and actions are proceeding according to plans. At year-end 1988, the remaining 1986 business restructuring reserve totaled $759 million. We continue to believe that the reserve is adequate for completion of the planned activities.

Other Income and Interest Expense

Other income-net decreased slightly in 1988 primarily due to lower interest income. Other income was unusually high in 1986, largely because of damages paid to AT&T by the Republic of Iran and an increase in the value of our investment in Ing. C. Olivetti & C., S.p.A. (Please see Note (E).)

Interest expense includes interest on debt and other accrued liabilities. It excludes the interest expense of AT&T Credit, which is included in cost of services to reflect the costs of providing financial services. Interest expense incurred in connection with our construction program is capitalized as a cost of installing equipment and depreciated along with the associated plant. (For additional information on total interest expense, see Note (J).)

Interest expense decreased in 1988 primarily because a greater amount of interest was capitalized. In 1987, interest on debt decreased because of principal repayments. However, interest on other accrued liabilities increased.

Provision for Income Taxes

Income before income taxes was negative in 1988, because of the one-time charge for accelerated digitization, and was reduced substantially in 1986 by a restructuring charge. As a result, the provision for taxes was negative in those two years, with the reductions occurring almost entirely in deferred taxes.

In the last two years, the provision for income taxes also reflects the reduction in tax rates enacted in the 1986 Tax Reform Act. The statutory federal income tax rate was reduced to 34 percent in 1988, after declining to 40 percent in 1987 from 46 percent in 1986. (Please see Note (F).)

The Financial Accounting Standards Board has issued Statement of Financial Accounting Standards No. 96, "Accounting for Income Taxes." This standard significantly changes the method of accounting for income taxes and must be adopted no later than 1990. The standard requires adjustment of the deferred tax liabilities to reflect enacted tax rates applicable to future periods and to reflect other provisions of the standard. We expect there will be a significant addition to net income in the year of adoption, currently planned for 1990. In the years following adoption, net income could be affected significantly if statutory income tax rates are changed.

Net Income (Loss)

We reported a loss in 1988 solely because of the charge we took as part of our accelerated digitization program. A pre-tax charge of $6.7 billion reduced net income by $3.9 billion, or $3.66 per share. Excluding the effect of this one-time charge, higher total operating revenues, improved gross margin percentages for services and products, a lower effective tax rate, and reduced requirements for interest and preferred dividends would have more than offset higher expenses and produced an increase in earnings in 1988.

In 1986, the cumulative prior years' effect of a change in depreciation method for factory machinery and laboratory equipment reduced net income by $175 million or $.16 per share. (See Note (B) to the financial statements.) Net income in 1986 also was reduced by $1.5 billion for charges for business restructuring and a writedown of assets and inventory. These actions reduced 1986 earnings by an additional $1.43 per share, with the result that we reported only a small profit of $.05 per share for the year. (Please see Note (D).)

Total Assets and Net Worth

Total assets at the end of 1988 were substantially lower than at year-end 1987 due to the writedown of assets in our telecommunications network. Corresponding to this asset writedown were reductions in deferred tax liabilities and shareowners' equity.

Working Capital and Liquidity

Working capital, defined as current assets less current liabilities, was essentially unchanged in 1988 although individual components of working capital increased or decreased by substantial amounts in some cases.

Higher receivables reflect the consolidation of AT&T Network Systems International and AT&T Credit. Although prior years were restated, additional financing activity by AT&T Credit in 1988 increased receivables. The level of receivables also reflects higher sales levels and the sale of ownership interests in foreign and domestic cable systems.

The increase in inventories primarily is attributable to consolidation of AT&T Network Systems International. Debt maturing in one year increased primarily because of financing obligations of AT&T Credit. The increase in accounts payable primarily reflects higher expenditures due to the growth in our business.

We ended the year with a cash balance of $2.0 billion. Along with cash flow generated by operating activities, our cash balance affords us the flexibility to pursue attractive business opportunities, while continuing to pay dividends.

Consolidated Statement of Cash Flows

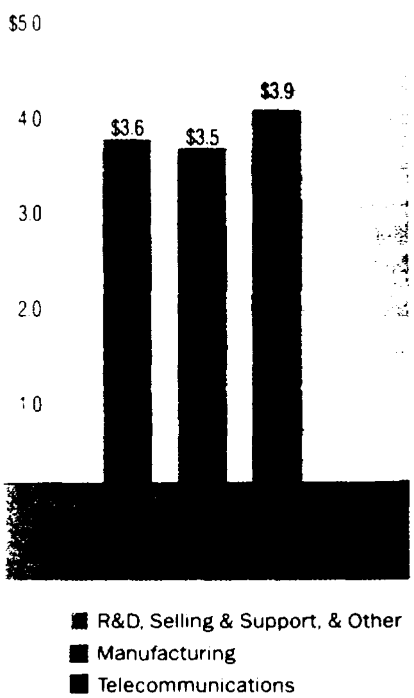
This year, we implemented the Statement of Financial Accounting Standards No. 95, "Statement of Cash Flows." This standard requires the reporting of cash flows separately for operating, financing and investing activities. As required by this standard, we replaced our former Consolidated Statement of Funds Flows with a new Consolidated Statement of Cash Flows. This change has no effect on our financial position or results of operations.

Cash Flow Provided by Operating Activities

We generated $4.7 billion in cash flow from operating activities in 1988 despite the loss in reported earnings. The charge we took in connection with our accelerated digitization program did not require an outlay of cash in 1988. Rather, that charge primarily recognized the impairment in value of technologically obsolete assets by increasing accumulated depreciation, thereby reducing net plant. Most of the 1986 charge for business restructuring similarly did not require cash expenditures in that year.

Changes in operating assets and liabilities had a major impact on cash flow from operating activities. In addition to the changes in working capital items, primarily accounts receivable, there were substantial changes in the levels of deferred income taxes and investment tax credits, and other current assets and other assets. The increase in other assets was due primarily to additions to prepaid pension costs and lease receivables. The changes in deferred taxes were primarily related to the nonrecurring charges in 1986 and 1988.

For the past three years, cash flows provided by operating activities and cash on hand have been more than adequate to support our investing activities and the payment of dividends, which have been our two largest uses of cash.



Investing Activities

Capital Expenditures

Our net capital expenditures include large outlays for the expansion and modernization of the AT&T Worldwide Intelligent Network. Approximately $3.0 billion of the total net expenditures in 1988 was related to the network. We have also made capital expenditures to modernize domestic and offshore manufacturing facilities and for research and development equipment.

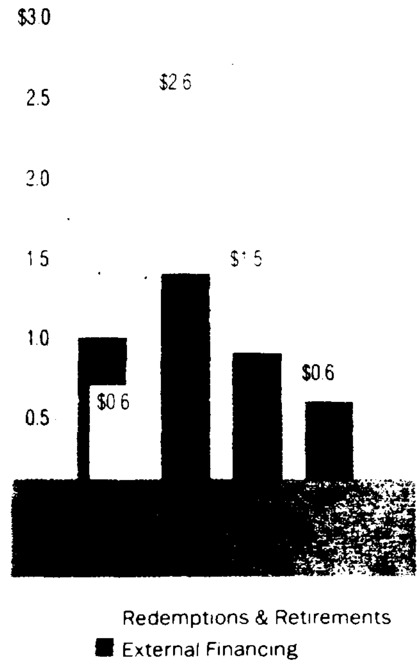
Other Investing Activities

Our investments in 1988 were all for operational and strategic reasons. In January 1988, we announced an agreement to purchase up to a 20 percent interest in Sun Microsystems, Inc. (Sun) by year-end 1990. At year-end 1988, we owned approximately 9.7 percent of the outstanding shares of Sun. We also increased our ownership in AT&T Network Systems International from 50 percent to 60 percent and began consolidating the venture in our financial statements.

Investments in 1988 increased primarily because of purchases of Sun shares. However, Investments did not increase commensurately because our consolidation of AT&T Network Systems International reduced the balance.

In January 1989, we formed a joint venture with GTE Corporation to implement new technology and capabilities in GTE's digital switching systems. The venture will operate a manufacturing plant and a research and development facility. We own 49 percent of the new company; our ownership will increase to 80 percent in five years and to 100 percent in fifteen years.

At the end of 1988, we made a tender offer to acquire Paradyne Corporation, a maker of data communications equipment. In January 1989, we accepted for payment more than 95 percent of outstanding shares, which were tendered to AT&T under the offer, and made arrangements to complete the acquisition. We also announced a proposed merger with Eaton Financial Corporation, an office equipment financing company. This merger would be consummated by an



exchange of common shares during 1989. We also announced plans to acquire U.S. Trust's Advanced Information Service subsidiary, a financial services company.

Financing Activities

The majority of our financing activity in 1988 related to the operations of our finance subsidiary, AT&T Credit. $463 million of additional long-term debt was issued in 1988 and $435 million of long-term debt was retired.

Our debt ratio at December 31, 1988 was 44.7 percent. The debt ratio at December 31, 1987 was 38.0 percent. The sharp increase in our debt ratio reflects the reduction in equity stemming from the charge for accelerated digitization. In addition, the consolidation of AT&T Credit in 1988 increased the debt ratio for all periods shown in the financial statements.

During 1988, we redeemed the last of the $1.5 billion in preferred stock that existed at divestiture. On February 1, 1988, we redeemed the remaining 600,000 shares of the $3.74 preferred stock issue. On May 1, 1988, we redeemed the remaining 600,000 shares of the $3.64 preferred stock issue. ■

Report of Management

The accompanying financial statements, which consolidate the accounts of American Telephone and Telegraph Company and its subsidiaries, have been prepared in conformity with generally accepted accounting principles.

The integrity and the objectivity of the data in these financial statements, including estimates and judgments relating to matters not concluded by year-end, are the responsibility of management as is all other information included in this Annual Report unless indicated otherwise. To this end, management maintains a system of internal controls. Our internal auditors monitor compliance with it in connection with an annual plan of internal audits. The system of internal controls, on an ongoing basis, is reviewed, evaluated and revised as necessary in view of the results of constant management oversight, internal and independent audits, changes in the Company's business, and other conditions and changes. Management believes that the Company's internal control system, taken as a whole, provides reasonable assurance that (1) financial records are adequate and can be relied upon to permit the preparation of financial statements in conformity with generally accepted accounting principles and (2) access to assets occurs only in accordance with management's authorizations. Recorded assets are compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. As a part of the system of internal controls, management establishes organization structures, carefully selects key personnel to provide an appropriate division of responsibility, and uses informational programs designed to assure that its policies, standards, and managerial authorities are understood throughout the organization.

These financial statements have been audited by Coopers & Lybrand, Independent Certified Public Accountants. Their audits are conducted in accordance with generally accepted auditing standards and include selective tests of transactions and a review of internal controls.

The Audit Committee of the Board of Directors, which is composed of Directors who are not employees, meets periodically with management, the internal auditors, and the independent auditors to review the manner in which they are performing their responsibilities and to carry out its oversight role with respect to auditing, internal controls, and financial reporting matters. Both the internal auditors and the independent auditors periodically meet alone with the Audit Committee and have access to the Audit Committee, and its individual members, at any time.

Morris Tanenbaum
Vice Chairman and Chief Financial Officer

Robert E. Allen
Chairman of the Board and Chief Executive Officer

Report of Independent Certified Public Accountants

To the Shareowners of American Telephone and Telegraph Company:

We have audited the accompanying consolidated balance sheets of American Telephone and Telegraph Company and subsidiaries at December 31, 1988 and 1987, and the related consolidated statements of income and cash flows for the years ended December 31, 1988, 1987 and 1986. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of American Telephone and Telegraph Company and subsidiaries at December 31, 1988 and 1987, and the consolidated results of their operations and their cash flows for the years ended December 31, 1988, 1987 and 1986, in conformity with generally accepted accounting principles.

As discussed in Note B to the consolidated financial statements, the Company changed its methods of accounting for majority-owned subsidiaries and depreciation.

Coopers & Lybrand

1251 Avenue of the Americas
New York, New York
February 8, 1989

AT&T and Subsidiaries

Consolidated Statements of Income

Years Ended December 31

Dollars in millions (except per share amounts)	1988	1987*	1986*
Sales and Revenues			
Sales of services, net of access charges (A)	$20,833	$19,830	$19,236
Sales of products	11,334	10,206	10,178
Rental revenues	3,043	3,732	4,799
Total operating revenues	35,210	33,768	34,213
Operating Costs and Expenses			
Cost of services (C)			
Recurring operating costs	8,826	8,885	9,018
Accelerated digitization program costs	6,724	–	–
	15,550	8,885	9,018
Cost of products	6,571	6,000	7,196
Cost of rentals	1,454	1,766	2,098
Selling, general and administrative expenses	12,130	11,148	11,101
Research and development expense (A)	2,572	2,453	2,278
Provision for business restructuring (D)	–	–	2,157
Total operating costs and expenses (N) (O)	38,277	30,252	33,848
Operating income (loss)	(3,067)	3,516	365
Other income–net (E)	269	303	381
Interest expense (J)	584	634	613
Income (loss) before income taxes	(3,382)	3,185	133
Provision for income taxes (F)	(1,713)	1,141	(181)
Income (loss) before cumulative effect of a change in depreciation method	(1,669)	2,044	314
Cumulative prior years' effect (to December 31, 1985) of a change in depreciation method (B)	–	–	(175)
Net Income (Loss)	(1,669)	2,044	139
Dividends on preferred shares	1	23	86
Income (loss) applicable to common shares	$(1,670)	$ 2,021	$ 53
Weighted average common shares outstanding (millions)	1,075	1,073	1,071
Earnings (Loss) per Common Share before cumulative effect of a change in depreciation method	$ (1.55)	$ 1.88	$ .21
Cumulative prior years' effect of a change in depreciation method (B)	–	–	(.16)
Earnings (Loss) per Common Share	$ (1.55)	$ 1.88	$ .05

*1987 and 1986 amounts have been restated. See Note (B).

The notes on pages 30 through 36 are an integral part of the financial statements.

AT&T and Subsidiaries

Consolidated Balance Sheets

At December 31

Dollars in millions (except per share amounts)	1988	1987*
Assets		
Current Assets		
Cash and temporary cash investments (M)	**$ 2,021**	$ 2,787
Receivables less allowances of $466 and $484 (H)	**8,907**	8,038
Inventories (A)	**3,392**	3,157
Deferred income taxes	**1,162**	1,175
Other current assets	**120**	165
Total current assets	**15,602**	15,322
Property, plant and equipment—net (G) (H)	**15,280**	20,808
Investments (I)	**859**	754
Other assets (A) (H) (N)	**3,411**	2,589
Total Assets	**$35,152**	$39,473
Liabilities and Shareowners' Equity		
Current Liabilities		
Accounts payable	**$ 4,948**	$ 4,634
Payroll and benefit-related liabilities	**2,435**	2,333
Debt maturing within one year (J)	**1,139**	1,001
Dividends payable	**322**	323
Other current liabilities	**2,381**	2,598
Total current liabilities	**11,225**	10,889
Other Liabilities and Deferred Credits		
Long-term debt including capital leases (H) (J)	**8,128**	7,917
Other liabilities	**1,462**	1,053
Deferred income taxes	**1,653**	3,467
Unamortized investment tax credits	**883**	1,342
Other deferred credits	**336**	268
Total other liabilities and deferred credits	**12,462**	14,047
Preferred shares subject to mandatory redemption (L)	**–**	82
Common Shareowners' Equity (K)		
Common shares-par value $1 per share	**1,074**	1,074
Authorized shares: 1,500,000,000		
Outstanding shares: 1,073,665,000 at December 31, 1988; 1,073,674,000 at December 31, 1987		
Additional paid-in capital	**8,613**	8,605
Retained earnings	**1,778**	4,776
Total common shareowners' equity	**11,465**	14,455
Total Liabilities and Shareowners' Equity	**$35,152**	$39,473

*1987 amounts have been restated. See Note (B).

The notes on pages 30 through 36 are an integral part of the financial statements.

AT&T and Subsidiaries

Consolidated Statements of Cash Flows

Years Ended December 31

Dollars in millions	1988	1987*	1986*
Cash Flow from Operating Activities:			
Net income (loss)	$(1,669)	$2,044	$ 139
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	3,690	3,754	3,925
Net (increase) decrease in operating assets and liabilities, detailed below	(3,360)	(400)	1,985
Business restructuring charges for facility closings	–	–	515
Accelerated digitization program costs associated with plant assets	6,196	–	–
Other adjustments for non-cash items	(111)	153	(50)
Net cash flow provided by operating activities before cumulative prior years' effect of a change in depreciation method	4,746	5,551	6,514
Cumulative prior years' effect of a change in depreciation method	–	–	175
Net cash flow provided by operating activities	4,746	5,551	6,689
Cash Flow from Investing Activities:			
Capital expenditures net of proceeds from sale or disposal of property, plant and equipment of $86, $42 and $146	(3,942)	(3,482)	(3,587)
(Increase) decrease in investments–net	(230)	110	(52)
Other investing activities–net	55	13	24
Net cash flow used in investing activities	(4,117)	(3,359)	(3,615)
Cash Flow from Financing Activities:			
Proceeds from long-term debt issuance	463	543	1,038
Retirements of long-term debt	(435)	(601)	(2,009)
Issuance of common shares	8	63	64
Redemption of preferred shares	(60)	(864)	(567)
Dividends paid	(1,290)	(1,320)	(1,381)
Increase (decrease) in short-term borrowings–net	(78)	182	178
Other financing activities–net	(3)	(11)	(8)
Net cash flow used in financing activities	(1,395)	(2,008)	(2,685)
Increase (decrease) in cash and temporary cash investments	(766)	184	389
Cash and temporary cash investments at beginning of year (M)	2,787	2,603	2,214
Cash and temporary cash investments at end of year (M)	$ 2,021	$2,787	$2,603
Operating Assets and Liabilities Components (M):			
(Increase) decrease in net receivables	$ (664)	$ 24	$1,091
(Increase) decrease in inventories	(19)	362	1,027
(Increase) decrease in other current assets and other assets	(749)	(723)	(824)
Increase (decrease) in accounts payable	244	21	(300)
Increase (decrease) in payroll and benefit-related liabilities	102	(166)	300
Increase (decrease) in other current liabilities	(363)	(439)	518
Increase (decrease) in deferred income taxes and investment tax credits	(2,260)	610	(521)
Increase (decrease) in other liabilities and other deferred credits	349	(89)	694
Net (increase) decrease in operating assets and liabilities	$(3,360)	$ (400)	$1,985

*1987 and 1986 amounts have been restated to conform to current presentation. See Note (B).
The notes on pages 30 through 36 are an integral part of the financial statements.

Notes to Consolidated Financial Statements

Dollars in millions (except per share amounts)

(A) Summary of Significant Accounting Policies

Consolidation

The consolidated financial statements include the accounts of AT&T and all its significant majority-owned subsidiaries. Other investments in 20 to 50 percent-owned companies and joint ventures are accounted for under the equity method. The remaining investments are recorded at cost.

Industry Segmentation

AT&T operates predominantly in a single industry segment, the information movement and management industry. This segment constitutes more than 90% of AT&T's total operating revenues, operating income, and identifiable assets. AT&T also is engaged in other activities that in the aggregate are not material and, as such, are not separately reported. These activities include the furnishing of shareholder services, provision of product financing, and the distribution of computer equipment through retail outlets.

Access Charges

Local telephone companies charge for access to their local telephone networks. These access charges are essentially collected from customers by AT&T and paid to the local telephone companies. Since these charges are collected on behalf of the local telephone companies, access charges are not included in AT&T's reported operating revenues. Access charges amounted to $16,764, $17,611 and $19,593 for 1988, 1987 and 1986, respectively.

Research and Development

Research and development expenditures are charged to expense as incurred. Development costs of software to be marketed are charged to research and development expense until technological feasibility is established, after which remaining software production costs are capitalized as other assets. These costs are amortized to product costs over the estimated period of sales and this amortization amounted to $182, $110 and $93 during 1988, 1987 and 1986, respectively. Unamortized software production costs were $345 and $287 at December 31, 1988 and 1987, respectively.

Investment Tax Credits

For financial reporting purposes, AT&T amortizes the investment tax credit (ITC) as a reduction of income tax expense over the useful life of the property that produced the credit. See also Note (F).

Inventories

Inventories are stated at the lower of cost or market. Cost is determined principally on a first-in, first-out basis for raw materials and work in process and on an average cost basis for completed goods.

At December 31	1988	1987
Completed goods	$1,833	$1,607
In process	1,147	1,087
Raw materials and supplies	412	463
Total	$3,392	$3,157

Plant and Equipment

Commencing in 1984, investment in plant and equipment is recorded at cost excluding intercompany profits. Rate regulated plant assets acquired prior to 1984 are recorded at cost, including reasonable intercompany profits in accordance with regulated accounting practices. At divestiture, the carrying value of these assets was significantly reduced by increasing the level of accumulated depreciation to that believed appropriate in a competitive environment, and this carrying value was further reduced by the 1988 accelerated digitization program writedown. These reductions were recorded primarily as increases in accumulated depreciation. Beginning in 1986, the gain or loss on sale of factory machinery and laboratory equipment in the normal course of AT&T's business is reflected in operating results. As other depreciable plant is retired, the original cost is removed from the plant account and from accumulated depreciation. See also Notes (C) and (G).

Depreciation

Depreciation is calculated using either the group method or, for factory machinery and laboratory equipment, the unit method. Factory facilities placed in service subsequent to December 31, 1979 are depreciated on an accelerated basis. All other plant and equipment is depreciated on a straight line basis. See also Note (B).

(B) Reporting and Accounting Changes

Effective December 31, 1988, AT&T changed its consolidation accounting policy to adopt Statement of Financial Accounting Standards (FAS) No. 94, "Consolidation of All Majority-owned Subsidiaries." As a result of this change, the accounts of AT&T Credit Corporation (AT&T Credit) are now included in AT&T's consolidated financial statements. All prior year data included in this report have been restated to reflect this change.

The Company also adopted FAS No. 95, "Statement of Cash Flows," as of December 31, 1988. Information previously reported in the Consolidated Statement of Funds Flows for 1987 and 1986 has been restated to conform to the new cash flow presentation.

In 1986, a change from the group to the unit method of depreciation for factory machinery and laboratory equipment was implemented to provide improved assignment of costs to products and better identification of service lives. The cumulative prior years' pretax income effect (to December 31, 1985) of this change was $332 ($175 net of taxes or $.16 per share).

(C) Accelerated Digitization Program Costs

In 1988, the Company announced plans to accelerate the digitization of its long distance network. As a result, older analog plant and equipment has become impaired. Accordingly, a charge was recorded in cost of services, increasing accumulated depreciation. The charge consisted of the following components: $4,965 for the writedown of network analog telecommunications plant, $614 for support assets and $699 for the estimated net asset removal expense. Expenses totaling $446 were also recorded for the force reductions associated with the accelerated digitization program. These actions reduced net income by $3,935 or $3.66 per share.

(D) 1986 Business Restructuring and Other Charges

In 1986 the Company recorded a $2,157 ($1,120 after taxes or $1.05 per share) business restructuring provision consisting of $1,125 for force terminations and $1,032 for the consolidation of factories, warehouses and other facilities expected to occur over a several-year period. If not reported separately in 1986, these charges would have been principally reflected in cost of products and selling, general and administrative expenses. As of December 31, 1988, the business restructuring reserve totaled $759, which the Company believes is adequate for the completion of the force downsizing and facility consolidation.

In addition to the business restructuring provision the Company also charged $761 ($409 after taxes or $.38 per share) to operations in the fourth quarter of 1986 for the inventory writedown of communications and office automation products, and for increased depreciation primarily related to rental equipment and other related assets.

(E) Other Income-Net

	1988	1987	1986
Interest, royalties and dividends	$239	$266	$267
Equity earnings from unconsolidated entities	48	24	35
Miscellaneous-net	(18)	13	79
Total	$269	$303	$381

In 1986 miscellaneous-net includes an award of $73 for damages paid by the Republic of Iran, representing net amounts due to AT&T, plus interest, which had been written off as uncollectible in previous years. Also included is a gain of $40 reflecting AT&T's portion of the premium above book value paid by third parties for newly issued shares of Ing. C. Olivetti & C., S.p.A..

(F) Income Taxes

The provision for income taxes consists of the following components:

	1988	1987	1986
Current			
Federal	$ 507	$ 422	$ 268
State and local	111	126	118
Foreign	13	12	7
	631	560	393
Deferred			
Federal	(1,573)	551	(399)
State and local	(313)	112	20
Foreign	1	1	1
	(1,885)	664	(378)
Deferred investment tax credits-net*	(459)	(83)	(196)
Provision for income taxes	$(1,713)	$1,141	$(181)

*Net of amortization of $583 in 1988, $330 in 1987 and $333 in 1986.

As indicated in the current tax portion of the preceding table the Company will pay a significant amount of taxes for 1988. The total tax provision for 1988 is negative because it reflects the tax benefits associated with the accelerated digitization program costs described in Note (C) and the amortization of ITC. The provision for income taxes in 1986 was negative because it reflected future tax benefits associated with the restructuring charges described in Note (D) and the amortization of ITC. If it were not for the accelerated digitization program costs in 1988 and the restructuring charges in 1986 the provision for income taxes would have been $1,076 and $856, respectively.

Deferred taxes, resulting from timing differences in the recognition of revenue and expense items for tax and financial reporting purposes, were as follows:

	1988	1987	1986
Property, plant and equipment	$(2,387)	$(201)	$ 213
Business restructuring, force and facility consolidation	230	491	(851)
Pensions and other benefits	219	104	277
Utilization of tax credits carried forward	–	94	320
Inventory valuation	–	96	(230)
Other timing differences	53	80	(107)
Total	$(1,885)	$ 664	$(378)

Principal causes for the differences between federal income tax expense computed at the federal statutory rate and AT&T's provision for income taxes are explained below:

	1988	1987	1986
Statutory federal income tax rate	34%	40%	46%
Federal income tax at statutory rate	$(1,150)	$1,274	$ 61
Amortization of investment tax credits	(583)	(330)	(333)
State and local income taxes, net of federal income tax effect	(134)	143	75
Research credits	(24)	(20)	(42)
Other differences	178	74	58
Provision for income taxes	$(1,713)	$1,141	$(181)

During 1987 the Financial Accounting Standards Board issued FAS No. 96, "Accounting for Income Taxes," which requires deferred income taxes to be determined based on the enacted income tax rates for the years in which these taxes will be payable or refundable. The deadline for adopting this new standard has been extended until 1990. While the impact of FAS No. 96 is expected to significantly increase net income in the year of adoption, the amount is not reasonably estimatable at this time.

(G) Property, Plant and Equipment

At December 31	1988	1987
Land and improvements	$ 530	$ 512
Buildings and improvements	6,943	6,504
Machinery, electronic and other equipment	33,427	32,666
Total property, plant and equipment	40,900	39,682
Less: Accumulated depreciation*	25,620	18,874
Property, plant and equipment-net	$15,280	$20,808

*See also Note (C)

(H) Leases

As Lessor: The Company leases equipment to others through operating leases; the majority of these are cancelable. AT&T's net investment in leased equipment was as follows:

At December 31	1988	1987
Machinery, electronic and other equipment	$2,839	$3,439
Less: Accumulated depreciation	1,666	1,551
Net investment	$1,173	$1,888

AT&T also provides direct financing and other leasing programs to enhance the marketability of its products and also leases its products to others under sales-type leases. The Company's net investment in finance assets arising out of these leasing arrangements amounted to $1,393 and $1,099, including residual values of $144 and $59, in 1988 and 1987, respectively. The investment is reflected net of unearned income of $387 and $259, respectively. Finance service revenue is recognized over the life of the respective leases using the interest method and is included in Sales of services. The future maturities of these finance assets for the five years subsequent to 1988 are $538 in 1989, $454 in 1990, $309 in 1991, $184 in 1992, $76 in 1993 and $75 in years thereafter.

As Lessee: AT&T leases land, buildings and equipment through contracts that expire in various years. Future minimum lease payments at December 31, 1988 are as follows:

	Capital Leases	Operating Leases
1989	$144	$ 521
1990	129	405
1991	96	300
1992	49	234
1993	42	176
Later years	120	835
Total minimum lease payments	580	$2,471
Less: Estimated executory cost	2	
Imputed interest	175	
Present value of net minimum lease payments	$403	

Rental expense for operating leases was $1,106 in 1988, $887 in 1987 and $987 in 1986.

(I) Investments

Investment in Wholly Owned Finance Subsidiary

The following are the condensed financial statements of the Company's wholly owned finance subsidiary, AT&T Credit, that are now being consolidated as a result of the accounting change described in Note (B).

Condensed Financial Statements

AT&T Credit	1988	1987	1986
Revenue, principally finance income	$ 228	$ 175	$125
Interest and other expenses	190	147	96
Net income	30	19	14

At December 31	1988	1987
Net investment in finance assets	$1,832	$1,462
Other assets	309	183
Total assets	$2,141	$1,645
Debt maturing within one year	$ 511	$ 332
Other liabilities	442	334
Long-term debt*	957	799
Shareowner's equity	231	180
Total liabilities and shareowner's equity	$2,141	$1,645

*Includes $125 due AT&T

AT&T Credit, which prior to the adoption of FAS No. 94 was accounted for under the equity method, is principally engaged in offering financing arising primarily from product sales by AT&T to customers. During 1988, 1987 and 1986, AT&T sold to AT&T Credit $134, $201 and $380, respectively, of sales-type lease receivables–net of unearned interest income.

Other Investments

AT&T's investments at equity were $670 and $702 at December 31, 1988 and 1987, respectively. AT&T's cumulative equity investment in undistributed earnings of investees was $94 at December 31, 1988. Dividends received from equity investment entities were $27 in 1988 and $26 in 1987.

Ing. C. Olivetti & C., S.p.A. (Olivetti)–21% of voting shares owned. The market value of AT&T's investment in Olivetti, as measured by the closing price on the Milan, Italy stock exchange at December 31, 1988 and 1987, was $689 and $644, respectively.

Joint Venture with Lucky Gold Star Group–44% of voting shares owned.

AT&T Network Systems International (AT&T NSI, formerly APT)–In January 1988, AT&T acquired a majority interest in AT&T NSI, its joint venture with N.V. Philips, by increasing its ownership interest to 60%. As a result of this transaction AT&T NSI is fully consolidated in the 1988 financial statements. (See also Note (M).)

Sun Microsystems, Inc.–9.7% of voting shares owned. This investment is accounted for under the cost method and amounted to $150 at December 31, 1988.

(J) Debt Obligations

Long-term obligations outstanding consisted of the following:

Interest Rates	Maturities	At December 31, 1988	1987
Debentures:			
3 7/8% to 4 [illegible]%	1990-1999	**$1,550**	$1,550
5 [illegible]% to 7 [illegible]%	1995-2003	**1,850**	1,850
7 [illegible]% to 9	1988-2026	**2,516**	2,523
Notes:			
5 [illegible]% to 7 [illegible]%	1988-2003	**1,023**	1,025
7 [illegible]% to 8 [illegible]%	1988-1995	**439**	278
9% to 12 [illegible]%	1988-2003	**812**	699
		8,190	7,925
Long-term lease obligations		**403**	397
Other		**69**	33
Less: Unamortized discount-net		**32**	35
		8,630	8,320
Less: Current portion			
Long-term debt		**386**	283
Long-term lease obligations		**112**	120
Other		**4**	–
Total long-term obligations		**$8,128**	$7,917

Long-term debt maturities for the five years subsequent to December 31, 1988 are $386 in 1989, $777 in 1990, $335 in 1991, $484 in 1992, $214 in 1993, and $5,994 in years thereafter.

The remaining portion of debt maturing within one year consisted principally of commercial paper, which amounted to $486 and $520 at December 31, 1988 and 1987, respectively.

Interest expense relates to the cost of short- and long-term debt and interest on accrued liabilities. The Company capitalized interest costs of $116, $73 and $109 for 1988, 1987 and 1986, respectively. In addition, interest costs totaling $96 in 1988, $65 in 1987, and $47 in 1986 related to finance service operations are included in cost of services.

(K) Common Shareowners' Equity

	Common Stock	Additional Paid-In Capital	Retained Earnings
Balance at December 31, 1985	$1,069	$8,483	$5,081
Net income 1986	–	–	139
Dividends declared			
On $77.50 Preferred	–	–	(20)
On $ 3.64 Preferred	–	–	(32)
On $ 3.74 Preferred	–	–	(34)
On Common shares $1.20 per share	–	–	(1,285)
Shares issued under employee plans	3	61	–
Redemption of preferred shares	–	–	(22)
Translation adjustments	–	–	94
Other changes	–	–	13
Balance at December 31, 1986	$1,072	$8,544	$3,934
Net income 1987	–	–	2,044
Dividends declared			
On $3.64 Preferred	–	–	(9)
On $3.74 Preferred	–	–	(9)
On Common shares $1.20 per share	–	–	(1,287)
Shares issued under employee plans	2	61	–
Redemption of preferred shares	–	–	(34)
Translation adjustments	–	–	148
Other changes	–	–	(11)
Balance at December 31, 1987	$1,074	$8,605	$4,776
Net loss 1988	–	–	(1,669)
Dividends declared			
On $3.64 Preferred	–	–	(1)
On Common shares $1.20 per share	–	–	(1,288)
Shares issued under employee plans	–	8	–
Redemption of preferred shares	–	–	22
Translation adjustments	–	–	(59)
Other changes	–	–	(3)
Balance at December 31, 1988	$1,074	$8,613	$1,778

(L) Redeemable Preferred Shares

The Company has 100,000,000 authorized shares of preferred stock at $1 par value. The outstanding issues were as follows:

Shares Outstanding At December 31	$77.50 Issue, Stated Value $1,000	$3.64 Issue, Stated Value $50	$3.74 Issue, Stated Value $50
1986	25,000	8,500,000	8,800,000
1987	–	600,000	600,000
1988	**–**	**–**	**–**

During 1988 the outstanding shares of the $3.64 and $3.74 series were redeemed for $60.

(M) Cash Flow Information

For cash flow reporting purposes, the Company considers all highly liquid temporary cash investments with maturities generally of three months or less to be cash equivalents.

Net cash flow from operating activities reflects cash payments for interest and income taxes as follows:

	1988	1987	1986
Interest paid, net of amounts capitalized	**$681**	$647	$718
Income taxes paid	**657**	559	351

Non-cash investing and financing activities excluded from the Consolidated Statements of Cash Flows consist primarily of the acquisition of machinery and equipment under capital lease obligations amounting to $167, $112 and $62 in 1988, 1987 and 1986, respectively.

In addition, the following table sets forth the non-cash assets and liabilities, consolidated as a result of the Company's additional investment in AT&T NSI, that have been excluded from the 1988 Consolidated Statements of Cash Flows. (See also Note (I).)

Dollars in millions	1988
Non-cash assets and (liabilities):	
Net receivables	$205
Inventories	216
Other current assets and other assets	28
Accounts payable	(70)
Other current liabilities	(146)
Long-term liabilities	(9)
Property, plant and equipment	174
Long-term debt	(207)
Net non-cash assets consolidated	191
Less: Decrease in investments	64
Increase in other liabilities	119
Net cash investing activity	$ 8

(N) Employee Benefit Plans

Pension Plans

The Company sponsors non-contributory defined benefit plans covering substantially all management and non-management employees. Benefits for management employees are based on a career average pay plan while the benefits for non-management employees are based on a non-pay-related plan.

The Company's pension contributions are made to trust funds, which are held for the sole benefit of pension plan participants. Contributions are determined in accordance with the aggregate cost method, an acceptable funding method under the Employee Retirement Income Security Act of 1974, and with appropriate Internal Revenue Service regulations.

Pension cost is computed using the projected unit credit method in accordance with the Statement of Financial Accounting Standards No. 87, "Employers' Accounting for Pensions."

Pension cost includes the following components:

	1988	1987	1986
Service cost-benefits earned during the period	**$ 425**	$ 447	$ 421
Interest cost on projected benefit obligation	**1,438**	1,356	1,300
Amortization of unrecognized prior service costs*	**39**	22	13
Less: Expected return on plan assets†	**1,785**	1,651	1,502
Amortization of transition asset	**480**	480	480
Pension credit	**$ 363**	$ 306	$ 248

*These costs pertain to plan amendments in 1988 and prior years and are amortized on a straight line basis over the average remaining service period of active employees.
†The actual return on plan assets was $3,363, $1,499 and $3,845 in 1988, 1987 and 1986, respectively.

The funded status of the plan was as follows:

At December 31	1988	1987
Actuarial present value of accumulated benefit obligation, including vested benefits of $15,165 and $14,926, respectively	**$16,972**	$16,797
Plan assets at market value	**$28,462**	$26,559
Less: Actuarial present value of projected benefit obligation	**18,157**	17,978
Excess of assets over projected benefit obligation	**10,305**	8,581
Unrecognized prior service costs	**663**	477
Less: Unrecognized transition asset	**6,198**	6,678
Unrecognized net gain	**3,398**	1,374
Prepaid pension cost	**$ 1,372**	$ 1,006

The projected benefit obligation was determined using discount rates of 8.75% and 8.25% at December 31, 1988 and 1987, respectively, and an assumed long-term rate of compensation increase of 5.0%. The expected long-term rate of return on plan assets used in determining pension cost was 8.0% for 1988, 1987 and 1986. The unrecognized transition asset is being amortized over 15.9 years. Plan assets consist primarily of listed stocks, corporate and governmental debt, and real estate investments.

Savings Plans

The Company sponsors savings plans for substantially all employees. These plans allow employees to contribute a portion of their pretax or after-tax income, in accordance with specified guidelines. AT&T matches a percentage of these contributions up to certain limitations. During 1988, 1987 and 1986, such costs amounted to $273, $263 and $231, respectively.

(O) Postretirement Benefits

The Company's benefit plan for retirees includes health care benefits and life insurance coverage.

The health care benefits are provided through insurance company contracts. The annual cost of such benefits is the claims incurred for retirees. This cost was $265, $234 and $192 for approximately 109,400, 91,400 and 87,000 retired employees in 1988, 1987 and 1986, respectively. In addition, under the terms of the Divestiture Plan of Reorganization, AT&T pays a portion of the health care and other benefit costs of the divested Bell System operating telephone companies' predivestiture retirees. These costs are expensed as incurred and were $101, $85 and $84 for 1988, 1987 and 1986, respectively.

The cost of providing postretirement life insurance benefits to employees who meet certain age and service requirements is determined and funded under the aggregate cost method. This cost was $24 for 1988, $23 for 1987, and $27 for 1986.

(P) Stock Options

The AT&T 1987 Long-Term Incentive Program (Plan), which became effective on July 15, 1987, provides for the granting of stock options, stock appreciation rights (SARs) in tandem with stock options or free-standing, and other awards. Under the Plan, 0.6% of the outstanding shares of the Company's common stock as of the first day of each calendar year is available for grant in such year. All shares available in any year that are not granted under the Plan are available for grant in subsequent years. The exercise price of any stock option or award shall not be less than 100% of the fair market value of the stock on the date of a grant of such option. Under the Plan, exercise of either a related option or a related SAR cancels the other to the extent of such exercise.

Prior to July 15, 1987, stock options were granted under the AT&T 1984 Stock Option Plan. No new options can be granted under the 1984 plan. Under this plan, a maximum of 20,000,000 shares of the Company's common stock were available for grant at fair market value on the date of grant.

Option transactions during 1988, 1987 and 1986 are shown below:

Number of Shares	1988	1987	1986
Balance at January 1	6,450,232	4,910,201	3,295,536
Options granted	7,523,270	2,125,105	1,947,400
Options and SARs exercised	(479,280)	(352,171)	(182,090)
Average price	$20.06	$19.47	$18.28
Options forfeited	(155,099)	(232,903)	(150,645)
At December 31:			
Options outstanding	13,339,123	6,450,232	4,910,201
Average price	$25.54	$22.35	$20.95
Options exercisable	5,964,931	4,529,087	3,088,076
Shares available for grant	4,814,358	6,328,878	14,827,039

During 1988, SARs were granted for 556,080 shares for an average exercise price of $27.84, and 63,766 SARs were exercised. As of December 31, 1988, 1,290,254 SARs remained unexercised, of which 734,174 SARs were exercisable as of December 31, 1988.

(Q) Contingencies

AT&T is a defendant in a number of lawsuits and party to a number of other proceedings that have arisen in the normal course of its business, including certain regulatory proceedings in which revenues are being collected by AT&T subject to possible refund. There are also potential liabilities under government laws and regulations primarily related to environmental matters. In the opinion of the Company's legal counsel, any monetary liability or financial impact of such lawsuits and proceedings to which AT&T might be subject after final adjudication would not be material to the consolidated financial position of the Company.

(R) AT&T Technologies, Inc.

AT&T Technologies, Inc. is a wholly owned subsidiary of the Company and is included in the AT&T consolidated financial statements. The following table provides summarized consolidated financial information for AT&T Technologies, Inc., which includes sales of $3,693, $3,474 and $3,473 for 1988, 1987 and 1986, respectively, to AT&T and its affiliates. Such sales have been eliminated in the AT&T consolidated financial statements. During 1988 and 1987, the Company reallocated business restructuring reserves of $15 and $273, respectively, to AT&T Technologies from other AT&T business units. These transfers had no impact on AT&T's consolidated net income.

AT&T Technologies, Inc.	1988*	1987*†	1986*†
Sales	$11,409	$10,655	$10,586
Gross profit on sales	4,054	3,893	3,126
Cumulative prior years' effect (to December 31, 1985) of a change in depreciation method (B)	–	–	90
Net income (loss)	453	290	(357)

At December 31	1988	1987
Current assets	$ 4,953	$ 4,779
Net property, plant and equipment, long-term investments, and other noncurrent assets	3,426	3,124
Total assets	$ 8,379	$ 7,903
Current liabilities	$ 2,338	$ 2,343
Long-term debt and other noncurrent liabilities	1,922	1,771
Equity capital	4,119	3,789
Total liabilities and equity capital	$ 8,379	$ 7,903

*Includes $15, $273 and $866 for provision for business restructuring in 1988, 1987 and 1986, respectively. See Note (D).
†1987 and 1986 amounts have been restated to conform to current presentation.

(S) Quarterly Information (unaudited)

Quarters	First	Second	Third	Fourth	Total
1988					
Operating revenues	**$8,389**	$8,802	$8,812	$ 9,207	$35,210
Operating costs and expenses	**7,575**	7,823	7,854	15,025	38,277
Net income (loss)	**492**	594	587	(3,342)	(1,669)
Earnings (loss) per common share	**.46**	.55	.55	(3.11)	(1.55)
1987					
Operating revenues	**$8,159**	$8,440	$8,517	$ 8,652	$33,768
Operating costs and expenses	**7,363**	7,308	7,646	7,935	30,252
Net income	**445**	596	505	498	2,044
Earnings per common share	**.40**	.55	.47	.46	1.88

1988 Fourth Quarter: Includes an increase in operating costs and expenses of $6,724 and a decrease in net income of $3,935 ($3.66 per share) due to the charge for the accelerated digitization program. See Note (C).

Market and Dividend Data (unaudited)

AT&T common stock is traded on the New York, Philadelphia, Boston, Midwest, and Pacific stock exchanges. It also trades on the London, Tokyo, and other foreign stock exchanges. The prices shown in the accompanying table were obtained from the Composite Tape encompassing the trading on all the above U.S. exchanges and trades reported by the National Association of Securities Dealers and Instinet. Common shareowners of record totaled 2,638,964 as of December 31, 1988. The payment of common dividends will depend upon the Company's earnings and financial requirements and other factors. For details of the common shareowners' equity see Note (L) to the financial statements.

Calendar Quarter		Market Price High	Market Price Low	Dividends Declared
1988	**1st**	**$30 1/4**	**$26 1/2**	**$.30**
	2nd	**28 1/4**	**25 3/4**	**.30**
	3rd	**27 1/8**	**24 1/8**	**.30**
	4th	**30 3/8**	**25 5/8**	**.30**
1987	1st	$27 3/8	$22 1/4	$.30
	2nd	29 1/4	23 1/4	.30
	3rd	35 7/8	27 1/8	.30
	4th	34 3/4	20	.30

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1989 Annual Meeting

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Shareowner and General Information

Publications and Audio Tapes

AT&T Headquarters

Residence Sales, Leasing and Information

Residence Service and Repair

Business and Residence

Special Needs

AT&T